U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office

SEARCH REQUEST FORM

Requestor's Name:		Serial Number:	
Date:	Phone:	Art Unit:	
Search Topic: Please write a detailed statement of set that may have a special meaning. Giv a copy of the sequence. You may in	e examples or relevant citations, auti	ors keywords, etc., if known. For se	hed. Define any terms quences, please attach
			,
		<u> </u>	
	STAFF USE O	NLY	
Date completed: 06-11	-03 -04994 Search S		
Searcher: 20	<u> </u>	STIC	IG Suite STN
Elapsed time:		Pre-S	Dialog APS
Total time: 23	Type f	N.A. Sequence	Geninfo
Number of Searches: Number of Databases:	<u> </u>	A.A. Sequence	SDC DARC/Questel
Number of Databases.		Bibliographic	Other CGN

PTO-1560 (9-90)

USCOMM-DC 90-3952

THIS PAGE BLANK (USPTO)

Sequence 2163, Appl Sequence 20, Appl Sequence 6, Appli Sequence 193, App Sequence 7198, Ap

Sequence 61, Appl Sequence 112, App Sequence 207, App Sequence 207, App Sequence 1, Appli

Sequence 14, Appl Sequence 15, Appl Sequence 16, Appl Sequence 17, Appl Sequence 2, Appli Sequence 3, Appli

Sequence 3, Appli Sequence 10867, Sequence 5458, Ap

Appli Appli

Sequence 2 Sequence 2 Sequence 2 Sequence 1 Sequence 3 Sequence 8

```
We2 Jun 11 10:47:40 2003
```

Sequence:

Run on:

₹

Searched:

Lmum Maximum Database

```
APPLICANT: Phippard, Deborah
APPLICANT: Phippard, Deborah
APPLICANT: Vasanthakamur, Geetha
APPLICANT: Oxogen, Stanton
APPLICANT: Doctoon, Stanton
TITLE OF INVENTION: Oxteoarthritis tissue-derived nucleic acids, polypeptides,
TUTLE OF INVENTION: Oxteoarthritis tissue 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 TGATGGTAAGTTGTTTCAGGCATAAAATTTGAAATAAATTATGAGGCTCCATGATATGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATATTGGTTTTTACCTTCAGAAGAATATTTAGTTTCACTCAGGTTTTTCAAAGCTACGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61 ATATTGGTTTTACCTTCAGAAGAATATTTAGTTTCACTCAGGTTTTTCAAAGCTACGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TCCCCCAAAAAACGAAACAAAACAAAAAACAACCTTTTTAAGAGTTGATGGCTACTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121 TCCCCCAAAAACGAAACAAAAAAAAAAAACTTTTTAAGAGTTGATGGCTACTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 TGATGGTAAGTTGTTTCAGGCATAAATTTGAAATAAATTATGAGGCTCCATGATATGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TIGHT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 100.0%; Score 225; DB 10; Best Local Similarity 100.0%; Pred. No. 1.5e-50; Matches 225; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-960-352-10867
US-10-198-846-5458
                                                            US-09-925-1301-393
US-10-198-846-7198
US-09-754-853A-11
US-09-754-853A-22
US-09-754-853A-23
US-09-754-853A-12
US-09-754-853A-13
US-09-754-853A-14
US-09-754-853A-14
US-09-754-853A-14
US-09-754-853A-15
US-09-754-853A-15
US-09-754-853A-17
US-09-754-853A-17
US-09-754-853A-17
US-09-754-853A-17
US-09-754-853A-17
US-09-754-853A-17
US-09-754-853A-17
US-09-754-853A-17
US-09-754-853A-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-08-781-986A-61
US-10-078-090-112
US-10-074-095-207
US-09-764-860-207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-10-196-063-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 58, Application US/09765231A Patent No. US20020119452A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Searle/Monsanto
                                                              749
1007
4501
4501
4501
4503
4522
4523
4523
4523
4523
335913
335913
                                                                                                                                                                                                                                                                                                                                                                                                                       368
1406
8009
811
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: DNA
ORGANISM: Homo sapiens
US-09-765-231A-58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-765-231A-58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
  유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 58, Appli
Sequence 1, Appli
Sequence 772, App
Sequence 772, App
Sequence 1661, Ap
Sequence 4260, Ap
Sequence 104, App
Sequence 106, App
Sequence 106, App
Sequence 10188, A
Sequence 29, Appl
Sequence 29, Appl
Sequence 29, Appl
Sequence 1, Appl
Sequence 80, Appl
                                                                                                                                                    9, 2003, 08:36:49 ; Search time 539 Seconds (without alignments) 584.222 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                     Jescription
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "CGT2 6/ptodate/1/pubpna/USO7 PUBCOMB.seq:*

(CGT2 6/ptodate/1/pubpna/USO7 PUBCOMB.seq:*

(CGT2 6/ptodate/1/pubpna/USO6 DUBCOMB.seq:*

(CGT2 6/ptodate/1/pubpna/USO6 PUBCOMB.seq:*

(CGT2 6/ptodate/1/pubpna/USO7 NEW PUB.seq:*

(CGT2 6/ptodate/1/pubpna/USO8 NEW PUB.seq:*

(CGT2 6/ptodate/1/pubpna/USO8 NEW PUB.seq:*

(CGT2 6/ptodate/1/pubpna/USO8 PUBCOMB.seq:*

(CGT2 6/ptodate/1/pubpna/USO8 PUBCOMB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                 1740770
                    GenCore version 5.1.6
Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0 US-09-770-791-772

0 US-09-880-107-1661

0S-09-980-965-4454

0 US-09-917-265-104

0 US-09-917-265-106

0 US-10-198-846-10020

US-10-198-846-102188

US-09-986-480-98

US-09-986-1131-29

US-09-981-1151-29

US-09-981-1151-29

US-09-980-11

US-09-980-11

US-09-980-11

US-09-980-11

US-09-980-11

US-09-980-11

US-09-980-11

US-09-373-658-33

US-10-175-523-80

US-10-175-523-80
                                                                                                                                                                                                                                                                                                                                                                                                                                          nl number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                  870385 segs, 699768693 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Applications NA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                            nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                               IDENTITY NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        seq length: 0
seq length: 200000000
                                                                                                                                                                                                                                     US-09-765-231A-58
225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query
Match Length DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1132
2749
3161
640681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          90650
584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   225
640681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Published Published
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            June
                                                                                                                                                                                                                                         Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                 Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
0
0
8
                                                                                                          nucleic
```

ô

Gaps

. 0

Indels

Length 225;

Regult õ 9 9 120 120 180 180

```
; TYPE: DNA
; ORGANISM: Arabidopsis thaliana
US-09-770-791-772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Garcia, Carlos A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Raines, Tracy M.
                                                                                                                            TOPOLOGY: linear
IMMEDIATE SOURCE:
LIBRARY: 13177
                                                                                                                                                                                                                                                                Query Match 16.6
Best Local Similarity 53.0
Matches 80; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US20020062014A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    age, Amy
                TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -09-770-791-772/c
                                                                                                                                                                                                                          US-10-072-130-2
                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                           요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     198302 AATCAAATTAATAAACTAGTATATTTTCAATTATGACTTTTCAATAATTTTTATTATTAAG 198243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3. AAATAAATTATGAGGCTCCATGATATGCTATATTGGTTTTACCTTTCAGAAGAATATTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                       Length 640681;
                                                                              APPLICANT: HATTORI, MASAHIRA
APPLICANT: SAKAKI, YOSHIYUKI
TITLE OF INVENTION: GENOME DNA OF BACTERIAL SYMBIONT OF APHIDS
FILE REFERENCE
CURRENT APPLICATION NUMBER: US/09/790,988
                                                                                                                                                                                                                                                                                                                                                                                                                                           58; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OPERATING SYSTEM: DOS SOFTWARE: FastSEQ for Windows Version 2.0
                                                                                                                                                                                                                                                                                                                                                                                                         DB 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Corley, Neil C.
Zhang, Hong
TITLE OF INVENTION: NEW PROTEIN PHOSPHATASE
NUMBER OF SEQUENCES: 4
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADDRESSEE: Incyte Pharmaceuticals, Inc.
                                                                                                                                                                                                                                                                                                                                                                                                     Score 38.2; Di
Pred. No. 19;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/072,130
FILING DATE: 05-Feb-2002
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: US/08/873,093
                                                                                                                                                                                                        PRIOR APPLICATION NUMBER: JP2000-107160
PRIOR FILING DATE: 2000-04-07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STREET: 3174 Porter Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER: IBM Compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 3
US-10-072-130-2/c
US-10-072-130-2/c
Sequence 2, Application US/10072130
Fatent No. US20020173022A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME: Billings, Lucy J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Bandman, Olga
Goli, Surya K.
Lal, Preeti
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           198182 AAGATTTTTTA 198172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ZIP: 94304
COMPUTER READABLE FORM:
MEDIUM TYPE: Diske
                                                                                                                                                                                                                                                                  : PatentIn Ver. 2.1
                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 17.0
Best Local Similarity 55.7
Matches 73; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CITY: Palo Alto
STATE: CA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     152 AACCTTTTTAA 162
    Sequence 1, Application US
Patent No. US20020127687A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COUNTRY: USA
                                                                                                                                                                                                                                                                                                                          TYPE: DNA
ORGANISM: Buchnera sp
                                                                                                                                                                                                                                              NUMBER OF SEQ ID NOS
                                                                                                                                                                                                                                                                                                        LENGTH: 640681
TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                US-09-790-988-1
                                                                                                                                                                                                                                                                  SOFTWARE: P
Sequence
```

g

용 ઠે

```
2195 TTGACATACATTTTGATGTGTGTAGTTAGGCTATACAGAATATACAAACCAAAGCTGTAT 2136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2135 GAATAATACATAGGTTTTTCAAAAGTTATGTTTCATAAAGAATACAGAGAAAGGAAAAT 2076
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            89 TAGTITICACTCAGGTTTTTCAAAGCTACGCTGTCCCCCAAAAAACGAAAACAAAAAA 148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 29 TTGAAATAAATTATGAGGCTCCATGATATGCTATATTGGTTTTACCTTCAGAAGAATATT 88
                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                 ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APDLICANT: Hoffman, welth
APPLICANT: Hoffman, wilch
TITLE OF INVENTION: Expressed Sequences of Arabidopsis
TITLE OF INVENTION: thaliana
FILE REFERENCE: 2029 (Papa, ....
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2075 AGCCACACATCCCAATATCTCACAACTTCTAA 2045
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              149 AACAACCTTTTTAAGAGTTGATGGCTACTCA 179
                                                                                                                                                                                                                                                                                                                                                                 Score 37.4; DB Pred. No. 2.9; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NUMBER OF SEQ ID NOS: 999
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 772
LENGTH: 345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CURRENT APPLICATION NUMBER: US/09/770,791 CURRENT FILING DATE: 2001-01-26
                                                                                                                                                                                                                                                                 CLONE: THPIPLB01
SEQUENCE DESCRIPTION: SEQ ID NO: 2:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRIOR APPLICATION NUMBER: 60/178,480
PRIOR FILING DATE: 2000-01-27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 772, Application US/09770791
TELECOMMUNICATION INFORMATION TELEPHONE: 415-855-0555
                                                                                                                    LENGTH: 2268 base pairs
                                             415-845-4166
                                                                                                                                             TYPE: nucleic acid
STRANDEDNESS: single
                                                                      INFORMATION FOR SEQ ID NO: 2: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                              16.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  An, Yong-Qiang
Hamilton, Carol M.
Price, Jennifer L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  u, Yang
ameaka, Joshua G
```

```
49 AAAAGTACCT 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: DNA ORGANISM: BOB taurus
                                                                                                                                                                                                                                      NAME/KEY: misc feat
LOCATION: 74, 149,
LOCATION: 464, 479,
LOCATION: 554, 557,
LOCATION: 635, 650,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-983-965-4454/C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        128 AAAAACGAAACAAAAAAAAAAAACATCTTTTTAAGAGTTGATGGCTACTCATTTGATCT 187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              834 AGAAAAGAAACAAACAAACAAATCGACCCTTTAATTATTACTTGCAACTCAACAGATCT 893
                                                                                                                                                                                                                                      72 ACCTICAGAAGAATATTTAGTTTCACTCAGGTTTTTCAAAGCTACGCTGTCCCCCAAAAA 131
                                                                                                                                                                               155 TGTATTACCTAAGACAATAAATATGATTTATGAATAAAACTAATTTGAATTACTGCATAT 96
                                                                                                                                                                                                                                                                                            95 GAAATTATAAATCITITIGTTITIAATCICAAGATGTAATAATTIATGAICTTCACATAAAA 36
                                                                                                                      12 TGTTTCAGGCATAAAATTTGAAATAAATTATGAGGCTCCATGATATGCTATATTGGTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AND METHODS
PREVENTION, AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gequence 1661, Application US/09880107

LEDREAL INFORMATION:

APPLICANT: HORNE, Darci T.

APPLICANT: Gene Logic, Inc.

TITLE OF INVENTION: Gene Expression Profiles in Liver Cancer:

TITLE OF INVENTION Gene Expression Profiles in Liver Cancer:

TITLE OF INVENTION Gene Expression Profiles in Liver Cancer:

TITLE OF INVENTION Gene Expression Profiles in Liver Cancer:

TITLE OF INVENTION Gene Expression Profiles in Liver Cancer:

TITLE OF INVENTION Gene Expression Profiles in Liver Cancer:

TITLE OF INVENTION UNMBER: US/09/880,107

CURRENT PILING DATE: 2001-06-14

PRIOR PEPLICATION NUMBER: US 60/237,054

PRIOR PEPLING DATE: 2000-10-02

NUMBER OF SEQ ID NOS: 3950

SOFTWARE: PARENTIN Ver. 2.1

SEQ ID NO 1661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             . OTHER INFORMATION: Genbank Accession No. US20020142981A1 D45288
US-09-880-107-1661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 16.2%; Score 36.4; DB 10; Length 1479; Best Local Similarity 61.7%; Pred. No. 4.5; Matches 58; Conservative 0; Mismatches 36; Indels 0;
Query Match
16.2%; Score 36.4; DB 10; Length 345;
Best Local Similarity 53.5%; Pred. No. 2.5;
Matches 76; Conservative 0; Mismatches 66; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 4266, Application US/10198846
Publication No. US20030099974A1
GENERAL INFORMATION:
APPLICANT: Lillie, James
APPLICANT: Xu, Yongyao
APPLICANT: Wang, Youzhen
TITLE OF INVENTION: NOVEL GENES, COMPOSITIONS, KITS, AND
TITLE OF INVENTION: NOVEL GENES, TITLE OF INVENTION: THERAPY OF BREAST CANCER
TITLE OF INVENTION: THERAPY OF BREAST CANCER
FILE REFERENCE: MRI-049
CURRENT FILLIG DATE: 2002-07-18
PRIOR APPLICATION NUMBER: 60/306,220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        188 GCCTCCTCTGCTGAATCAATTAGGAATTTTTT 221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              894 cécreceracrecerrereagaacriracri 927
                                                                                                                                                                                                                                                                                                                                                      132 ACGAAACAAACAAAAAAAAA 153
                                                                                                                                                                                                                                                                                                                                                                                                               35 AAAAAAAAAAAAAAAAAAA 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: DNA
ORGANISM: Homo mapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 6
US-10-198-846-4260/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PEATURE:
                                                                                                                                                                         g
                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
```

```
APPLICANT: Tao, Nengbing
APPLICANT: Byatt, John C.
APPLICANT: Byatt, John C.
APPLICANT: Byatt, John C.
APPLICANT: Mathialagan, Nagappan
APPLICANT: Mathialagan, Nagappan
TITLE OF INVENTION: NUCLEIC ACID AND OTHER MOLECULES ASSOCIATED WITH LACTATION AND
TITLE OF INVENTION: MUSCLE AND FAT DEPOSITION
TITLE OF INVENTION: MUSCLE AND FAT DEPOSITION
CURRENT APPLICATION NUMBER: US 09/465,231
PRIOR APPLICATION NUMBER: US 60/113,678
PRIOR FILING DATE: 1999-12-15
PRIOR APPLICATION NUMBER: US 60/113,678
PRIOR FILING DATE: 1999-12-17
NUMBER OF SEQ ID NOS: S912
SEQ ID NO 4454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             169 AATTTAGCTANATTTATCTTNTCAATCAAATTCTACTTCAGAGGTAAGTAAAAAAGT 110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                87 ITTAGTTTCACTCAGGTTTTTCAAAGCTACGCTGTCCCCCAAAAAACGAAACAAAACAAA 146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              27 ATTTGAAATAAATTATGAGGCTCCATGATATGCTATATTGGTTTTACCTTCAGAAGAATA 86
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4 TGGTAAGTTGTTTCAGGCATAAAATTTGAAATTAAAATTATGAGGCTCCATGATATGCTATA
                                                                                                                                                                                                                4, 540, 547, 549,
629, 630, 631,
671, 674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 234;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 15.9%; Score 35.8; DB 9; Length 885; Best Local Similarity 53.8%; Pred. No. 5.3; Matches 70; Conservative 0; Mismatches 60; Indels (
                                                                                                                                                                                                                                                                                                                                                                                           726, 727, 798, 799, 836, 842, 8
                                                                                                                                                                                                                                              518, 524,
623, 624,
664, 669,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            15.6%; Score 35.2; DB 10;
58.7%; Pred. No. 4.4;
tive 0; Mismatches 43;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; OTHER INFORMATION: Clone ID: 05-LIB34-080-Q1-E1-B9
US-09-983-965-4454
                                                                                                                                                                                                                                                                     615,
663,
                                                                                                                                                                                                                                                                                                                                                                                        , 689, 691, 692, 702, 7
, 746, 749, 750, 758, 7
, 810, 814, 822, 826, 8
, 860, 865, 868, 869, 8
PRIOR FILING DATE: 2001-07-18
NUMBER OF SEQ ID NOS: 14084
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 4260
LENGTH: 885
TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                              479, 480, 482, 498, 504,
557, 571, 576, 589, 612,
650, 653, 657, 661, 662,
                                                                                                                                                                                                                                                                                    OTHER INFORMATION: n = A,T,C or G
FEATURE:
NAME/KEY:
MISC. Feature
LOCATION: 676, 677, 689, 691, 692, 76
LOCATION: 742, 745, 746, 749, 750, 75
LOCATION: 805, 808, 810, 814, 822, 82
LOCATION: 865, 677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 4454, Application US/09983965 Patent No. US20020137160A1 GENERAL INFORMATION: APPLICANT: Warren, Weeley C.
                                                                                                                                                                                                                                                                                                                                                                                                                                           JOTHER INFORMATION: n = A,T,C or G US-10-198-846-4260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity 58.7%
Matches 61; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          147 AAAACAACCT 156
```

9

ઠ

```
1390 rakararararaksesesesererererererererererererererarakseseseses 1331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61 ATATTGGTTTTACCTTCAGAAGAATATTTAGTTTCACTCAGGTTTTTCAAAGCTACGCTG 120
                                                             158 İTAİATAATTİTİĞİĞİTCATGAAAĞCAİĞİĞAATTAATTİATATTTATĞITATATT 99
                                                                                                                                                        30 TGAAATAAATTATGAGGCTCCATGATATGCTATATTGGTTTTACCTTCAGAAGAATATTT
                     1 TGATGGTAAGTTGTTTCAGGCATAAATTTGAAATAAATTATGAGGCTCCATGATATGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Steinmann, Kathleen
TITLE OF INVENTION: NOVEL GENES, COMPOSITIONS, KITS, AND METHODS
TITLE OF INVENTION: FOR IDENTIFICATION, ASSESSMENT, PREVENTION, AND
TITLE OF INVENTION: THERAPY OF BREAST CANCER
FILE REFERENCE: MRI-049
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 1747;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Wang, Youzhen
APPLICANT: Steinmann, Kathleen
TITLE OF INVENTION: NOVEL GENES, COMPOSITIONS, KITS,
TITLE OF INVENTION: FOR IDENTIFICATION, ASSESSMENT,
TITLE OF INVENTION: THERAPY OF BREAST CANCER
FILE REFERENCE: MRI-049
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 9;
                                                                                                                                                                                                     121 TCCCCCAAAAACGAAACAAAAAAAAAAAAAAA 153
                                                                                                                                                                                                                                                  TGAGTAGAAAAAAAAAAAAAAAAAAAAAAAAAAAAA 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION NUMBER: US/10/198,846
CURRENT FILING DATE: 2002-07-18
PRIOR APPLICATION NUMBER: 60/306,220
PRIOR FILING DATE: 2001-07-18
NUMBER OF SEQ ID NOS: 14084
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 10020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 34.6;
Pred. No. 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 1218B, Application US/10198846
Publication No. US20030099974A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                           Sequence 10020, Application US/10198846 Publication No. US20030099974A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME/KEY: misc feature
LOCATION: 1, 1747
OTHER INFORMATION: n = A,T,C or G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                15.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best Local Similarity 55.4
Matches 67; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Xu, Yongyao
Wang, Youzhen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Lillie, James
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: DNA ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Xu, Yongyao
                                                                                                                                                                                                                                                                                                                                                                                     Publication No. US20 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           JS-10-198-846-12188/c
                                                                                                                                                                                                                                                                                                                                           US-10-198-846-10020/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1270 A 1270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          150 A 150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-10-198-846-10020
                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                               g
                                                                                                            ò
                                                                                                                                                      g
                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                           Sequence 104, Application US/09917265
Patent No. US20020052030A1
GENERAL INFORMATION:
APPLICANT: Wonderling, Ramani S.
APPLICANT: Wonderling, Ramani S.
APPLICANT: Boroughs, Karen L.
TITLE OF INVERTION: CANINE AND FELINE PROTEINS, NUCLEIC ACID MOLECULES AND USES THERE FILE REFERENCE: IM-5
CURRENT APPLICATION NUMBER: US/09/917,265
CURRENT FILING DATE: 2001-07-27
RROR FILING DATE: 2000-08-04
NUMBER OF SEQ ID NOS: 109
SOFTWARE: Patentin version 3.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Boroughs, Karen L.
TITLE OF INVENTION: CANINE AND FELINE PROTEINS, NUCLEIC ACID MOLECULES AND USES THERE FILE REFERENCE: IM-5
CURRENT APPLICATION NUMBER: US/09/917,265
CURRENT FILING DATE: 2001-07-27
PRIOR APPLICATION NUMBER: 60/223,016
PRIOR FILING DATE: 2000-08-04
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61 ATATTGGTTTTACCTTCAGAAGAATATTTAGTTTCACTCAGGTTTTTCAAAGCTACGCTG 120
159 TGATAGCTTTAGAGAGATATAAGGTATGAAAAAAAAATTTCTGATACATGATATATAAAA 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 TGATGGTAAGTTGTTTCAGGCATAAATTTTGAAATAAATTATGAGGCTCCATGATATGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 1455;
                                              64 TIGGITITACCITCAGAAGAATATITAGITICACICAGGITITI 107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           74; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                         99 ATGTTATTACATGTGGAAGAATAGTACCCCTCACACAGAGTATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        74;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1418 TGAGTAGAAAAAAAAAAAAAAAAAAAAAAAAAAA 1450
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 34.6; DE
Pred. No. 13; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 34.6; D
Pred. No. 13;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 106, Application US/09917265 Patent No. US20020052030A1 GENERAL INFORMATION: APPLICANT: Wonderling, Ramani S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQ ID NOS: 109
SOFTWARE: PatentIn version 3.1
SEQ ID NO 106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   15.4%;
51.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity 51.6%;
Matches 79; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: DNA
ORGANISM: Canis familiaris
US-09-917-265-106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: DNA
ORGANISM: Canis familiaris
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             79; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LOCATION: (232)..(897)
CTHER INFORMATION:
US-09-917-265-104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-917-265-106/c
                                                                                                                                                           RESULT 8
US-09-917-265-104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LENGTH: 1455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE: Pa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Loc
Matches
```

g ઠે 유

```
CURRENT APPLICATION NUMBER: US/09/925,301
CURRENT FILING DATE: 2001-08-10
PRIOR APPLICATION NUMBER: PCT/US00/05882
PRIOR FILING DATE: 2000-03-08
PRIOR APPLICATION NUMBER: 60/124,270
PRIOR FILING DATE: 1999-03-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: DNA
ORGANISM: Homo sapiens
                                                                      1129 TCGA 1132
                                150 ACAA 153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-925-301-577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-813-153-29
                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                유
                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1009 TGGAAGAATTTTGTATTATACAAGAAGACCCAGATGAATTATTGTTTAAGTAGAGCATTT 1068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           87 TTTAGTTTCACTCAGGTTTTTCAAAGCTACGCTGTCCCCCAAAAAAAGGAAACAAAA 146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                27 ATTIGAAATAAATTATGAGGCTCCATGATATGCTATATTGGTTTTACCTTCAGAAGAATA 86
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           30 TGAAATAAATTATGAGGCTCCATGATATGCTATATTGGTTTTACCTTCAGAAGAATATTT
                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .
0
                                                                                                                                                                                                                                                                                                                                                                                                         ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 9; Length 1132;
                                                                                                                                                                                                                                                                                                                                                           Query Match
15.3%; Score 34.4; DB 9; Length 379;
Best Local Similarity 54.8%; Pred. No. 8.7;
Matches 68; Conservative 0; Mismatches 56; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  56; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATI: Rosen et al.
ITILE OF INVENTION: 143 Human Secreted Proteins
FILE REFERENCE: PSSO0P1
CURRENT APPLICATION NUMBER: US/09/986,480
CURRENT FILING DATE: 2001-11-08
PRIOR APPLICATION NUMBER: PCT/US00/12788
PRIOR PILING DATE: 2000-05-11
PRIOR PILING DATE: 1999-05-13
NUMBER OF SEC ID NOS: 456
SOFTWARE: Patentin Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    15.3%; Score 34.4; DB
54.8%; Pred. No. 14;
tive 0; Mismatches
CURRENT APPLICATION NUMBER: US/10/198,846
CURRENT FILING DATE: 2002-07-18
PRIOR PILING DATE: 2001-07-18
NUMBER OF SEQ ID NOS: 14084
SOFTWARE: PastSEQ for Windows Version 4.0
SEQ ID NO 12188
LENGTH: 379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    INFORMATION: n equals a,t,g, or c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OTHER INFORMATION: n equals a,t,g, or NAME/KEY: SITE LOCATION: (260)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 98, Application US/09986480 Publication No. US20030027999A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                             | NAME/KEY: misc_feature
| LOCATION: 378, 379
| CTHER INFORMATION: n = A,T,C or G
US-10-198-846-12188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Local Similarity 54.8
Matches 68; Conservative
                                                                                                                                                                                                    ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: DNA ORGANISM: Homo Bapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             147 AAAA 150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURE:
NAME/KEY: SITE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LOCATION: (153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-986-480-98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-986-480-98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EQ ID NO 98
                                                                                                                                                                                  TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ouery Match
```

ઠે g ઠે ઠે

```
2578 igarargratititgingaagitititititgaaaaaaaahtatitacaargitatitigaar 2637
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2638 GATTTTTTAAATGCTGTGAATCTATATTTGTTGTTTTRTATAAAATTTCATTTGCCA 2697
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               64 TTGGTTTTACCTTCAGAAGAATATTTAGTTTCACTCAGGTTTTTTCAAAGCTACGCTGTCC 123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4 TGGTAAGTTGTTTCAGGCATAAAATTTGAAATTAAAATTATGAGGCTCCATGATATGCTATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 15.3%; Score 34.4; DB 9; Length 2749; Best Local Similarity 51.3%; Pred. No. 20; Matches 77; Conservative 1; Mismatches 72; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 577, Application US/09925301
Patent No. US20020052308A1
GENERAL INFORMATION:
APPLICANT: Rosen et al.
TITLE OF INVENTION: Nucleic Acids, Proteins and Antibodies
FILE REFERENCE: PA106
                                                                                                      TTILE OF INVENTION: 67 Human secreted proteins
TTILE OF INVENTION: 67 Human secreted proteins
TTILE OF INVENTION: 67 Human secreted proteins
CURRENT APPLICATION NUMBER: US/09/813,153
CURRENT FILING DATE: 2001-03-21
PRIOR APPLICATION NUMBER: US/09/363,044
PRIOR FILING DATE: 1999-07-29
PRIOR FILING DATE: 1998-01-30
PRIOR FILING DATE: 1998-01-30
PRIOR FILING DATE: 1998-01-30
PRIOR FILING DATE: 1998-01-30
PRIOR PELLOR TOWNERE: 60/073,165
PRIOR PRIOR DATE: 1998-01-30
PRIOR PELLOR DATE: 1998-01-30
PRIOR APPLICATION NUMBER: 60/073,167
PRIOR APPLICATION NUMBER: 60/073,167
PRIOR APPLICATION NUMBER: 60/073,167
PRIOR APPLICATION NUMBER: 60/073,167
PRIOR APPLICATION NUMBER: 60/073,167
PRIOR PRIOR DATE: 1998-01-30
PRIOR FILING DATE: 1998-01-30
PRIOR FILING DATE: 1998-01-30
PRIOR PLING DATE: 1998-01-30
PRIOR PLING DATE: 1998-01-30
PRIOR PLING DATE: 1998-01-30
PRIOR PLING DATE: 1998-01-30
PRIOR APPLICATION NUMBER: 60/073,170
PRIOR APPLICATION NUMBER: 60/073,170
PRIOR APPLICATION NUMBER: 60/073,170
PRIOR APPLICATION NUMBER: 60/073,170
PRIOR PRIOR APPLICATION NUMBER: 60/073,170
PRIOR PRIOR PLING DATE: 1998-01-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2698 AAAAAAAAAAAAAAAAAAAAAAAAAAAAA 2727
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             124 CCCAAAAACGAAACAAAAAAAAAAAA 153
Sequence 29, Application US/09813153
Publication No. US20030045459A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 29
LENGTH: 2749
```

```
200343 AATTAATAGAAAAATCACTATATATTAAAAGCAGCTCATCCTTCTCCATTATCAGCATA 200402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3050 GATTÍTÍTTAAAÍGCTGTGÁAÍCTATÁTTÍGTTGÍTTTRÍATATTÁAÁATTCATTÍGCCA 3109
                                                                                                                                                                                                                                                                                                                                                                 64 TIGGITITACCTICAGAAGAATATITAGITICACTCAGGITITICAAAGCTACGCTGTCC 123
                                                                                                                                                                                                                                                                        147 AAAACAACCTTTTTAAGAGTTGATGGCTACTCATTTGATCTGCCTCCTCTGCTGAATCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   27 ATTIGAAATAAATTATGAGGCTCCATGATATGCTATATTGGTTTTACCTTCAGAAGAATA
                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 1, Application US/0979098
Sequence 1, Application US/0979098
Sequence 1, US2002012687A1
Settent No. US2002012687A1
GENERAL INFORMATION:
APPLICANT: SHIGENOBU, SHUJI
APPLICANT: HATTORI, MASAHIRA
APPLICANT: AATANABE, HIDEMI
APPLICANT: AATONI, MASAHIRA
APPLICANT: BAKAKI, YOSHIYUKI
TITLE OF INVENTION: GENOME DNA OF BACTERIAL SYMBIONT OF APPLICA
FILE REFERENCE: 081356/0159
CURRENT APPLICATION NUMBER: US/09/790,988
CURRENT PELLING DATE: 2001-02-23
FRIOR PILING DATE: 2000-04-07
NUMBER OF SEQ ID NOS: 7
SOFTWARE: PATENTIN VEY: 2.1
SEQ ID NO 1
LEGGTH: 640681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 34.4; DB 10; Length 640681;
Pred. No. 1.8e+02;
0; Mismatches 101; Indels 0;
                                                                                                                                                                               DB 10; Length 3161;
                                                                                                                                                                                                                            72; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3110 AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA 3139
                                                                                                                                                                                                                            1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                        124 CCCAAAAACGAAACAAAAAAAAAAAA 153
                                                                                                                                                                               Score 34.4; Pred. No. 21;
                                                                                                                                                                               15.3%;
51.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Lery Match
Sest Local Similarity 48.5%;
Matches 95; Conservative
                     SOFTWARE: Patentin Ver. 2.0 SEQ ID NO 577
                                                                                                                                                                             Query Match
Best Local Similarity 51.35
Matches 77; Conservative
NUMBER OF SEQ ID NOS: 1694
                                                                                        ; TYPE: DNA
; ORGANISM: Homo sapiens
US-09-925-301-577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: DNA
ORGANISM: Buchnera sp.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 15
US-09-790-988-1
                                                                 LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
```

Search completed: June 9, 2003, 08:47:21 Job time: 611 secs

Title: Perfect score:

Sequence:

•

OM nucleic

Run on:

Scoring table:

Searched:

Minimum DB Maximum DB

Database

```
ALO60402 Drosophil

AM504318 (UI-HF-BNO

BC022631 Home sapi

AZ523166 216PbB05

AM381028 CM-+HT028

BE325739 NF055G028

AW707524 AM071524

BB3740 CpG0090B Cp

BB3740 CpG0090B Cp

AL750985 AL750985 Cp

BA133196 BM351968

BH133196 ENTOO10TF

BH133199 ENTOO10TF

BH133199 ENTOO10TF

BH15645 ENTS57R

AU088212 AU088212

AL02394 Drosophil

BF014378 ro21e03.Y

BF014378 ro21e03.Y

BF014378 ro22e03.Y

BF014378 ro22e03.Y

BF014379 Terraodon

AL02391 Drosophil

AL294778 RPCI-23-1

AL294778 RPCI-23-1

AZ294776 RPCI-23-1

AZ13290 Drosophil

AZ294776 RPCI-23-1

AZ13290 BRCI-23-1

AZ19479 BRCI-23-1

AZ19479 BRCI-23-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Contact: Robert Strausberg, Ph.D.

Email: cgapbs-remail.nih.gov
Tissaue Procurement: L. Jeffrey Medeiros, M.D., Michael R.

Tissaue Procurement: L. Jeffrey Medeiros, M.D., Michael R.

Emmert-Buck, M.D., Ph.D.

CDNA Library Preparation: David B. Krizman, Ph.D.

CDNA Library Arrayed by: Greg Lennon, Ph.D.

Clone distribution: NCI-CGAP clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:

www-bio.llnl.gov/bbrp/image/image.tml
Insert Length: 1183 Std Error: 0.00
Seg primer: -40ml3 fwd. ET from Amersham
                                                                                                                                                                                                                                                                                                                                                                                                 AA134993 2026g01.8
AZ111894 RPCI-23-4
AQ422165 RPCI-11-2
AL107122 Drosophil
BM882716 rb28h04.y
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            341 bp mRNA linear , EST 19-AUG-1997 NCI_CGAP_Lip2 Homo sapiens cDNA clone IMAGE:939394, mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (Dases 1 to 341)
NCI-GGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
Unpublished (1997)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ALIGNMENTS
                                                                                                                                                     BJ351968
BI815488
AW952962
BG209526
BH156645
                                                                                                                                                                                                                                                                                           B1294873
CNS02WQ2
CNS0039G
CNS0039W
AZ294776
AZ294781
AZ213230
CNS00KNG
                                   AZ523166
CNS015W7
AW381028
BE325739
AU071524
                                                                                                                   BQ451684
AZ055107
BH133309
                                                                                                                                                                                                                                    BF014395
BF014378
BF014182
BE161482
BM160134
                                                                                                                                                                                                                                                                                                                                                                                                  AA134993
AZ111894
AQ422165
CNS016RS
BM882716
                                                                                                                                                                                                                          CNS01310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAŠ02552
AAS02552.1 GI:2237519
  1101
1290
1562
5955
647
208
647
409
647
409
941
189
951
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ng62e06.81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  human.
                                                                      40.6
40.6
40.4
                                                                                                                                                                                                            RESULT 1
AA502552
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VERSION
KEYWORDS
                        AAS02552 ng62e06.8
AI247782 qh61a07.x
AA682512 zi19a01.8
AL071865 Drosophil
AQY81761 HS 3122.A
AL326107 TeTraodon
                                                                              9, 2003, 08:36:50 ; Search time 1054 Seconds (without alignments) 3457.291 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                          Description
                                                                                                                                                                                                                                    32308132
            GenCore version 5.1.6
Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                            16154066 segs, 8097743376 residues
                                                                                                                                                                                                                                11 number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SUMMARIES
                                                                                                                                                                                                                                                                                          Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                          nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAS02552
AI247782
AA682512
CNS00DKY
AQ781761
CNS058MA
                                                                                                                                                                         IDENTITY NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        other:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      em_gss_other:
em_gss_pro:*
em_gss_rod:*
                                                                                                                                                                                                                                                         seq length: 0
seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            17
                                                                                                                                                                                                                                                                                                                                                               em_esthum:
em_estin:
em_estin:
em_estov:
em_estpl::
em_estpl::
em_htc::
gb_estl::
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  mam:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   _estfun:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  em_eatom: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               gb_est4:*
gb_est5:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                          gb_ast2:*
                                                                                                                                                                                                                                                                                                                                                      estba:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   _est3:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4:885 q6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           em_gss_v
em_gss_f
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          341
324
362
928
773
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    988
                                                                                                                                                                                                                                                                                                                                                      ea
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query
Match I
                                                                                                                                                                                                                                                                                                                                           EST: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    52.0
52.0
21.7
19.1
                                                                                June
```

117 117 48.8 43

Regult

```
1. .362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens
                                                                                                                                                                105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE
JOURNAL
COMMENT
                                                                                                                                                                COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 3
AA682512
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOURCE
                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                 d
                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gh61a07.x1 Soares fetal_liver_spleen_INFLS_S1 Homo sapiens CDNA clone IMAGE:1849140 3', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note="Vector: pAMP10; mRNA made from liposarcoma, cDNA made by oligo-dT priming Non-directionally cloned. Size-selected on agarose gel, average insert size 600 bp. Reference: Krizman et al. (1996) Cancer Research
                                                                                                                                                                                                                                                                                                                                                                                                                                                                79 GAAGAATATTTAGTTTCACTCAGGTTTTTCAAAGCTACGCTGTCCCCCAAAAAACGAAAC 138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            68 GAAGAATATTTAGTTTCACTCAGGTTTTTCAAAGCTACGCTGTCCCCCAAAAAACGAAAA 127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAAAC-AAAAAAACCTTTTTAAGAGTTGATGGCTACTCATTTGATCTGCCTCCTCTG 197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1. (bases 1 to 334)

NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.

National Cancer Institute, Cancer Genome Anatomy Project (CGAP), Tumor Gene Index

Unpublished (1997)
                                                                                                                                                                                                                                                                                                                                                                                                                            67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Email: cgapbs-r@mail.nih.gov
This clone is available royalty-free through LLNL ; contact the
IMAGE Consortium (infc@image.llnl.gov) for further information.
Insert Length: 821 Std Error: 0.00
                                                                                                                                                                                                                                                                                                                                                                                                                            8 GCCATAAATTTGAAATAAATTATGAGGCTCCATGATATGCTATATTGGTTTTACCTTCA
                                                                                                                                                                                                                                                                                                                                                                                         GGCATAAAATTTGAAATAAATTATGAGGCTCCATGATATGCTATATTGGTTTTACCTTCA
                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                       1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 clone_lib="Soares_fetal_liver_spleen_INFLS_S1"
                                                                                                                                                                                                                                                                                                                  Length 341;
                                                                                                                                                                                                                                                                                                                                                       0; Indels
                                                                                                                                                                                                                                                                                                                  Score 196; DB 9;
Pred. No. 9.6e-30;
                                                 /organism="Homo sapiens"
/db_xref="taxon:9606"
/clone="INAGE:9394"
/clone_lib="NCI_GGAP_Lip2"
/tissue_type="liposarcoma"
/lab_host="DH108"
                                                                                                                                                                                                                                                            111 t
                                                                                                                                                                                                                                                                                                                                                       0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTGAATCAATTAGGAATTTTTTTTTTT 215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                198 CTGAATCAATTAGGAATTTTTTTTTT 225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /organism="Homo sapiens"
/db_xref="taxon:9606"
/clone="IMAGE:1849140"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Contact: Robert Strausberg, Ph.D.
stop: 310.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Insert Length: 821 Std Error:
Seq primer: -40UP from Gibco
High quality sequence stop: 317.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers
 ity sequence stop: 3
Location/Qualifiers
                                                                                                                                                                                                                                                            מ
                                                                                                                                                                                                                                         56:5380-5383."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AI247782.1 GI:3843179
                                                                                                                                                                                                                                                                                                                  87.1%;
                                                                                                                                                                                                                                                                                                                                                       Matches 207; Conservative
 High quality
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens
                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
                                                                                                                                                                                                                                                            112
                                                                                                                                                                                                                                                                                                                                                                                           13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LOCUS
DEFINITION
                                                                                                                                                                                                                                                         BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 2
AI247782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURES
                   FEATURES
```

셤

ð

원

g ઠે

ઠે

COMMENT

```
2i19a01.sl Soares fetal liver spleen INFLS_S1 Homo sapiens CDNA clone IMAGE:431208 3', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              double-stranded cDNA was ligated to Eco RI adaptors (Pharmacia), digested with Pac I and cloned into the Pac I and Eco RI sites of the modified pT/T3 vector. Library went through one round of normalization. Library
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Enkaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 362)

1 Hillier,L., Allen,M., Bowles,L., Dubuque,T., Geisel,G., Jost,S., Krizman,D., Kucaman,D., Lacy,M., Le,N., Lennon,G., Marra,M., Martin,J., Moore,B., Schellenberg,K., Steptoe,M., Tan,F., Theising,B., WashU-NCI human EST Project
Uppublished (1997)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             This is a subtracted version of the original Soares fetal
               into a parameter in the strand cDNA was primed with a Pac I - oligo(dT) primer [5, and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page and page a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    This clone is available royalty-free through LLNL; contact the IMAGE Consortium (info@image.llnl.gov) for further information. Seq primer: -don13 fwd. ET from Amersham High quality sequence stop: 308.

Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /clone_lib="Soares_fetal_liver_spleen_INFLS_S1"
/sex="male"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Contract: Wilson RK
Washington University School of Medicine
4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108
Tel: 314 286 1800
Fax: 314 286 1810
Email: est@watson.wustl.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 324;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 52.0%; Score 117; DB 9; Length 32 Best Local Similarity 100.0%; Pred. No. 5.7e-14; Matches 117; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /organism="Homo sapiens"
/db_xref="taxon:9606"
/clone="IMAGE:431208"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AA682512.1 GI:2669793
```

g

ઠે g ઠે

```
84 9
                                                                                                   202 ATCAATTAGGAATTTTTTTTTT
                                                                                                                                                                                                                                                                                                                   AQ781761.1 GI:5684721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     'sex="male"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Seq primer: T7
Class: BAC ends
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Local Similarity
Matches 73; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 308 TAT 310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           223 TTT 225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              248
                                                                                                                                                                                                                                                                                                                                                           human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                               RESULT 5
AQ781761
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                         ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                            ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   JOURNAL
MEDLINE
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                    AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT
                                                        g
                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              엄
                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Luctuce and an analysis of the sequence of the sequence of submitted (02-JUM-1999) Genoscope - Centre National de Sequence : BP 191 91006 EVRY cedex - FRANCE (E-mail : seqref@genoscope.cns.fr - Web : www.genoscope.cns.fr)

Determination of this BAC-end sequence was carried out as part of a collaboration with the Berkeley Drosophila Genome Project (BDGP). The BDGP is constructing a physical map of the Drosophila melanogaster genome using these BACs. For further information please see http://www.fruitfly.org The BDGP Drosophila melanogaster BAC library was prepared by Kazutovyo Osoegawa and Aaron Mammoser in Pieter de Jong's laboratory in the Department of Cancer Genetic at the Roswell Park Cancer Institute in Buffalo, NY. The library is named RPCI-98 and was constructed by partial EcoRI digestion of Drosophila DNA provided by the BDGP from the isogenic strain y2, cn bw sp., the same strain used for the BDGP's and how to order individual BAC clones, the entire library, or filters for hybridization from the BACPAC Resource Center can be found at http://bacpac.med.buffalo.edu/drosophila_bac.htm.
                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                           GSS 04-JUN-1999
                                                                                                                                                         82 GAATATTTAGTTTCACTCAGGTTTTTCAAAGCTACGCTGTCCCCCAAAAAACGAAACAAA 141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      738 ТАТИНИНИМАТИТИDGKNИNNAИНИНИМИНИМИНАИМИМАААНИНИМИМИМИМААААААА 797
                                                                                                                                                                             Drosophila melanogaster genome survey sequence T7 end of BAC # AECR27A24 of RPCI-98 library from Drosophila melanogaster (fruit ALO), genomic survey sequence.
                                                                                                                                                                                                                                    22 ATAAAATTTGAAATTAAAATTATGAGGCTCCATGATATGCTATATTGGTTTTACCTTCAGAA
                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Drosophila melanogaster
Bukaryota, Metazoa, Arthropoda, Hexapoda, Insecta, Pterygota,
Neoptera, Endopterygota, Diptera, Brachycera, Muscomorpha,
Ephydroides, Drosophilidae, Drosophila.
    Bento Soares and M.Fatima Bonaldo."
77 g 110 t
                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 928;
                                                                                DB 9; Length 362;
                                                                                                                   0; Indela
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 191 others
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /organism="Drosophila melanogaster"
/db_xref="taxon:7227"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                81;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 17;
                                                                            Query Match 52.0%; Score 117; DB 9; I
Best Local Similarity 100.0%; Pred. No. 5.4e-14;
Matches 117; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      21.7%; Score 48.8; DE
31.4%; Pred. No. 1.4;
:ive 59; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 321 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /clone_lib="RPCI-98"
/note="end : T7"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Location/Qualifiers
constructed by Bent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 84
9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Drosophila melanogaster.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AL071865.1 GI:4948170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (bases 1 to 928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 70
C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                64; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Local Similarity
                      114 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Genoacope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BASE COUNT
ORIGIN
                      BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                         NITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Массћев
                                                                                                                                                                                                                                                                                                                               RESULT 4
CNSOODKY
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMMENT
```

g

ò

```
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi; Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 773) Mahairas G.G., Wallace, J.C., Smith, K., Swartzell, S., Holzman, T., Keller, A., Shaker, R., Furlong, J., Young, J., Zhao, S., Adams, M.D. and
                                                                                                                                                                                                                                AQ781761 T73 bp DNA linear GSS 02-AUG-1999 HS_3122_A2_D08_T7C CIT Approved Human Genomic Sperm Library D Homo Agpiens genomic clone Plate=3122 Col=16 Row=G, DNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                     162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     222
201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            High Throughput Sequencing Center University of Mashington University of Mashington 401 Queen Anne Avenue North, Seattle, WA 98109, USA Tel: (206) 616-3618 Bmail: jwallace@u washington.edu Clones any be purchased from Research Genetics (info@resgen.com) BAC end Wab Server: http://www.htsc.washington.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /db_xref="taxon:9606"
/clone="Plate=3122 Col=16 Row=G"
/clone_lib="CIT Approved Human Genomic Sperm Library D"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /note="Organ: sperm; Vector: pBeloBAC11; BAC Clones in E-Coli DH108"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence-tagged connectors: A sequence approach to mapping and scanning the human genome
Proc. Natl. Acad. Sci. U.S.A. 96 (17), 9739-9744 (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 773
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              IndelB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              50;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Hood L
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pred. No. 22;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                'organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Contact: Mahairas GG, Wallace JC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ch
1 Similarity 59.3%; Pred. No. 73; Conservative 0; Mismatch
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          High quality sequence stop: 773.
Location/Qualifiers
                                                                                                                               858 RWWITTITITITITITI 881
```

LOCUS DEFINITION CNS058MA/c

REFERENCE AUTHORS ERENCE AUTHORS

DURNAL

TITLE

```
Eukaryota, Metazoa, Arthropoda, Hexapoda, Insecta, Pterygota,
Neoptera, Endopterygota, Diptera, Brachycera, Muscomorpha,
Ephydroidea, Drosophilidae, Drosophila.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 199 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           42; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  organism="Drosophila
db_xref="taxon:7227"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /clone_lib="RPCI-98"
/note="end : TET3"
163 c 143 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 clone="BACR27P19"
Drosophila melanogaster
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AW504318.1 GI:7141985
                                                                                     (bases 1 to 1101)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 34.5<sup>3</sup>
Matches 58; Conservative
                                                                                                            Genoscope.
Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AW504318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                numan.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BASE COUNT
ORIGIN
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE
JOURNAL
COMMENT
                                                                                     REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AUTHORS
                                                                                                                                 TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 8
AW504318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURES
                                                                                                                                                                                                                        COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Drosophila melanogaster genome survey sequence TET3 end of BAC #BACR27P19 of RPCI-98 library from Drosophila melanogaster (fruit AL060402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Submitted (12-APR-2000)
This sequence is a single read and was generated as part of a large scale clone-end sequencing project of the Terraodon nigroviridis genome. For more information, please take a look at http://www.genoscope.cns.fr/Tetraodon.
Location/Qualifiers
                    964 bp DNA linear GSS 26-MAY-2000
nigroviridis genome survey sequence T3 end of clone
library A from Tetraodon nigroviridis, genomic survey
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGGTGATTTNCCGGTTGTGACCATTTTTAGCCGTACAATTATGGGGATTTTCTATGTTAAA 762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               64 TTGGTTTTACCTTCAGAAGAATATTTAGTTTCACTCAGGTTTTTCAAAGCTACGCTGTCC 123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        761 NATTTTCTACATTAAACATTATGTTTAATGTCATGAATGATTGTCNAAAATTAGTTGTAT 702
                                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
Acanthomorpha; Acanthopterygii; Percomorpha; Tetraodontiformes;
Tetraodontidae; Tetraodon.
                                                                                                                                                                                                                                                                                  1 (bases 1 to 964)
Roest-Crollius, 1 to 964)
Roest-Crollius, Jaillon, O., Dasilva, C., Bouneau, L., Fisher, C.,
Bernot, A., Fizames, C., Wincker, P., Brottier, P., Quetier, F.,
Saurin, W. and Weissenbach, J.
Human gene number estimate provided by genome wide analysis using
Tetraodon nigroviridis DNA sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       63
                                                                                                                                                                                                                                                                                                                                                                                                                                                          2 (bases 1 to 964)
Roest-Crollius, H., Jaillon, O., Dasilva, C., Fizames, C., Fisher, C.,
Bouneau, L., Billault, A., Quetier, F., Saurin, W., Bernot, A. and
Weissenbach, J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Charaterization and repeat analysis of the compact genome of the freshwater pufferfish Tetraodon nigroviridis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /organism="Tetraodon nigroviridis"
/db_xref="taxon:99883"
/clone="002822"
/clone_lib="A"
/note="Genoscope sequence ID : COAA002DA11A1-end : T3"
/note="Genoscope sequence ID : COAA002DA11A1-end : T3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGGTAAGTTGTTTCAGGCATAAAATTTGAAATTAATGAGGCTCCATGATATGCTATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 964;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    124 CCCAAAAAACGAAACAAAACAAAAAAAACAACCTTTTTAAGAGTTGATG 171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTAAAAAAAAAAACAAAAATCAAGACAAGTTCTTTTTCAGATTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         80; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 41.8; DB 17;
Pred. No. 34;
0; Mismatches 80;
                                                                                                                                                     GSS; genome survey sequence.
Tetraodon nigroviridis.
Tetraodon nigroviridis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Drosophila melanogaster
                                                                                                                                 AL326107.1 GI:8219696
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GI:4947764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  18.6%;
52.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (bases 1 to 964)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             88; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Lest Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AL060402.1
                                              Tetraodon
002B22 of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Genoscope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                701
                                                                                                       ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 7
CNS00D90/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BASE COUNT
ORIGIN
```

REFERENCE AUTHORS TITLE JOURNAL COMMENT

FEATURES

JOURNAL

TITLE

est Loc

요

유 8

ઠે 셤 ACCESSION VERSION KRYWORDS SOURCE

```
Web: www.genoscope.cns.fr.

Web: www.genoscope.cns.fr.

Determination of this BAC-end sequence was carried out as part of collaboration with the Berkeley Drosophila Genome Project (BDGP). The BDGP is constructing a physical map of the Drosophila melanogaster genome using these BACs. For further information please see http://www.fruitfly.org The BDGP Drosophila melanogaster BAC library was prepared by Kazutoyo Osoegawa and Aaron Mammoser in Pierer de Jong's laboratory in the Department of Cancer Genetics at the Roswell Park Cancer Institute in Buffalo, NY. The library is named RPCI-98 and was constructed by partial BCORI digestion of Drosophila DNA provided by the BDGP from the isogenic strain y2; cn bw sp, the same strain used for the BDGP's PI and BST library or an end of the library of the library of the library or the library of the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or the library or th
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AW504318
UI-HF-BNO-alg-e-05-0-UI.rl NIH_MGC_50 Homo sapiens cDNA clone
IMAGE:3079401 5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Submitted (02-JUN-1999) Genoscope - Centre National de Sequencage
BP 191 91006 EVRY cedex - FRANCE (E-mail : seqref@genoscope.cns.fr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        78 AGAAGAATATTTAGTTTCACTCAGGTTTTTCAAAGCTACGCTGTCCCCCAAAAAACGAAA 137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo. I (bases 1 to 290)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           18 AGGCATAAAATTTGAAATAAATTATGAGGCTCCATGATATGCTAŢATTGGTTTTACCTTC 77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       and how to order individual BAC clones, the entire library, or filters for hybridization from the BACPAC Resource Center can be found at http://bacpac.med.buffalo.edu/drosophila_bac.htm.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1015 AAAAAAAMAMATTTCTTWAMTTTWWYYTCYCWMACAMCTCCCTTYMCCACMAWWMCCCMW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         18.3%; Score 41.2; DB 17; Length 1101; 34.5%; Pred. No. 41;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   138 CAAAACAAAAAAACAACCTTTTTAAGAGTTGATGGCTACTCATTTGAT 185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ||:||:||:||| || || :::|||:|| ||:::|::::|
955 CAMAAYAAAAATWMAKTITKTKTCTTWKYTTTTKAMCMWAAARWT 908
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Contact: Robert Strausberg, Ph.D.
Email: cgapbs.r@mail.nih.gov
Eco RI site shown at the beginning of the sequence.
Tissue Procurement: Louis M. Staudt, M.D., Ph.D.
CDNA Library Preparation: M.B. Soares Lab
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               melanogaster"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      68;
```

```
478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GSS.
                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                           Bource
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           source
                                                                                                                                                                                                                                                                                            BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AZ523166/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM
                                                                                                                                                                                                                                                                                                                                                                   Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           KEYWORDS
SOURCE
                                                                                                                                         FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              HTC 07-AUG-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   111 GAAAAAGTATTTGGGCCCCCAAAAATGGCATAACGGTTTTATCCACAACCTAAGAAGAA 170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GTTTCACTCAGGTTTTTCAAAGCTACGCTGTCCCCCAAAAAACGAAACAAAAAAA 150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAAATAAATTATGAGGCTCCATGATATGCTATATTGGTTTTACCTTCAGAAGAATATTTA 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
1 (bases 1 to 1562)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Direct Submission
Submitted (04-FEB-2002) National Institutes of Health, Mammalian
Gene Collection (MGC), Cancer Genomics Office, National Cancer
Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
cDNA Library Arrayed by: M.B. Soares Lab
DNA Sequencing by: M.B. Soares Lab
Clone distribution: MGC clone distribution information can be
found through the I'm A.G. E. Consortium/LINL at:
www-bio.llnl.gov/bbrp/image/image.html
The following repetitive elements were found in this cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     cDNA Library Preparation: CLONTECH Laboratories, Inc.
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Institute for Systems Biology
http://www.systemsbiology.org
contact: amadandsystemsbiology.org
Anup Madan, Jessica Pahey, Erin Helton, Mark Ketteman, Anurac
Madan, Stephanie Rodrigues, Amy Sanchez and Michelle Whiting
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 290;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    55; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NIH-MGC Project URL: http://mgc.nci.nih.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 41; DB 10;
Pred. No. 89;
0; Mismatches 55;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1562 bp mRNA
Homo sapiens, clone IMAGE:4077047, mRNA.
BC022863
                                                                                                                                                                                         /organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Contact: MGC help desk
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: ATCC
                                                                                                    Beguence:
8-63, >POLY A#Simple repeat
Seg primer: M13 Forward.
                                                                                                                                                      Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                 41 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BC022863.1 GI:22135650
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 57.4%;
Matches 74; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                 51 c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          231 CAAAATTTT 239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Strausberg, R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        151 CAACCTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     91
                                                                                                                                                                                                                                                                                                                                                                                                           BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ESSION
SION
TWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BC022863
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REMARK
COMMENT
                                                                                                                                                      FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 9
```

셤

g ò g

ò

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1407 TGATAATATTGAAAATGGTGACCAAAACTCCTATGTAACTTGTAGCAAATTTTTCATCT 1466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1467 ITGIGICITIGGAAITIAGAAAAAATAITIAATITICICITAAGICITAAAAGHTITACICA 1526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GSS 07-MAY-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61 ATATTGGTTTTACCTTCAGAAGAATATTTAGTTTCACTCAGGTTTTTCAAAGCTACGCTG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /strain="ANKA clone 15cyl (clone of the ANKA 8417 clone)"
/db xref="taxon:5821"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /note="Vector: pBluescript SK(+) vector DNA, phagemid excised from lambda ZAP; Site_1: EcoRV; Site_2: EcoRV; Genomic DNA was prepared from asynchronous blood stage forms of the cloned ANKA isolate of P. berghei grown in laboratory Swiss white mice. The DNA was purified from
Clone distribution: MGC clone distribution information can be for through the I.M.A.G.E. Consortium/LiNL at: http://image.llnl.gov Series: IRAL Plate: 32 Row: I Column: 8
This clone was selected for full length sequencing because it passed the following selection criteria: Similarity but not
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AZ523166 595 bp DNA linear GSS 07-MAY-20
216PbB05 Pb MBN #21 Plasmodium berghei genomic 3', DNA sequence.
                                                                                                                                                                                                                                                                                               /db_xref="taxon:9606"
/clone="MAGE:4077047"
/tissue=type="Bone marrow, acute myelogenous leukemia"
/clone_lib=NNH_MGC_55"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryoca; Alveolata; Apicomplexa; Haemosporida; Plasmodium.

1 (bases 1 to 595)

Carlton,J.M.-R. and Dame,J.B.
The Plasmodium vivax and P. berghei gene sequence tag projects Parasitol. Today (Regul. Ed.) 16 (10), 409 (2000)

Contact: Dame JB

Dept. of Pathobiology, College of Veterinary Medicine
University of Florida
2015 $M$ 23rd Avenue, Bldg 1017, Gainesville, FL 32611, USA

Fax: 352 392 4700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 TGATGGTAAGTTGTTTCAGGCATAAATTTGAAATTAAATTATGAGGCTCCATGATATGCT
                                                                                                                                                 identity to protein

This clone has the following problem: incomplete processing.

Location/Qualifiers

1. 1562
/organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 11; Length 1562; 38;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    70;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /clone lib="Pb MBN #21"
/dev_stage="asexual blood forms"
/lab_host="Mus musculus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1527 ААТССАААААААААААААААААААААААААААА 1559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121 TCCCCCAAAAACGAAACAAAAAAAAAAAAA 153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       organism="Plasmodium berghei"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 41; DB 1
Pred. No. 38;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      464
                                                                                                                                                                                                                                                                                                                                                                                                                                                       /note="Vector: pDNR-LIB"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Email: damej@mail.vetmed.ufl.edu
Seg primer: M13(-20) forward
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             331 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AZ523166
AZ523166.1 GI:13961890
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          18.2%;
54.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   289 C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Plasmodium berghei
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local Similarity 54.2 es 83; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Plasmodium berghei
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     . 595
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Class: shotgun.
```

```
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AW381028
                                                                                                                                                                                                                                                                                                                                                                                               TG 188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Brazil
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EST
                                                                                                                                                                                                                                                                                                                                                                                                 187
                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 12
AW381028/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LOCUS
                                                                                                                                                                                                                                                 g
                                                                                                                                                     g
                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                      ઠ
                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                               ò
            ultracentrification and precipitated. Purified DNA was digested with mung bean nuclease in the presence of 36-18% formanide at 50 C, as described (Vernick, K.D., Imberski, R.B., and McUtchan, T.F. 1988. Nucleic Acids Research 16:6883-6896). The ends of the digestion fragments were polished using T4 DNA polymerase, and the fragments size selected in the range 500-2000 bp. These were ligated into the EcoRV-cleaved and dephosphorylated pBluescript SK(+) vector. Recombinant plasmids were used to transform E. 78 C 57 g 224 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CNSO15W7

Drosophila melanogaster genome survey sequence SP6 end of BAC BACN15B11 of DrosBAC library from Drosophila melanogaster (fruit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Submitted (13-JUL-1999) Genoscope - Centre National de Sequencage : BP 191 91006 EVRY cedex - FRANCE (E-mail : seqref@genoscope.cns.fr - Web : www.genoscope.cns.fr |
Determination of this BAC-end sequence was carried out as part of a collaboration with the Buropean Drosophila Genome Project (EDGP) - Http://www.edgp.ebi.ac.uk - This Drosophila melanogaster BAC |
Dibrary (Dros BAC) was made by Alain Billaud at CEPH (Centre d'Etude du Polymorphisme Humain) with funding provided by a MRC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        d'Etude du Polymorphisme Humain) with funding provided by a MRC project grant. The DNA was prepared from embryos by Alain Bucheton and Genevieve Payan. It has been constructed in the vector
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  510
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                71 TACCTTCAGAAGAATATTTAGTTTCACTCAGGTTTTTCAAAGCTACGCTGTCCCCCCAAAA 130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              131 AACGAAACAAAAAAAAAAAAACAACCTTTTTAAGAGTTGATGGCTACTCATTTGATCTGCC 190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     449 GGGGATCAAAAAAAAAAAAATTTTTTTAAAATAAAGGGGGAATTCCAAGAGGGGGC 390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  569 TTTTTTCCCCCAAAAATTTAAAATTTTTTAAAAATTATAAAATTCCCAATATGGGAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                    11 TIGITICAGGCATAAAATTTGAAATAAATTATGAGGCTCCATGATATGCTATATTGGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Drosophila melanogaster.
Drosophila melanogaster
Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
Neoptera; Endopterrygota; Diptera; Brachycera; Muscomorpha;
Ephydroidea; Drosophilidae; Drosophila.
contaminating host DNA by Hoechst Dye 33258-CsCl
                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                         Score 40.6; DB 17; Length 595;
Pred. No. 74;
0; Mismatches 109; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              87 others
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       organism="Drosophila melanogaster"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     191 TCCTCTGCTGAATCAATTAGGAATTTTTTTTTT 225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                389 ATATTTTTTTGAATTCCATATTGATATTATTT 355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ų
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         fly), genomic survey sequence. AL105985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            xref="taxon:7227"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /clone lib="DrosBAC"
/plasmId="pBeloBAC11"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           139 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /clone="BACN15B11"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AL105985.1 GI:5619413
                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 49.3%;
Matches 106; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        'note="end
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (bases 1 to 957)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        pBeloBAC11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Genoscope
                                                                                                                                                                                                                                                        236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PASE COUNT
ORIGIN
                                                                                                                                                                                                                                                        BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CNS015W7/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMMENT
```

셤

g 8

ઠે

```
/note="Organ: head neck; Vector: puc18; Site_1: Smal; Site_2: Smal; A mini-library was made by cloning products derived from ORESTES PCR (U.S. Letters Patent application No. 196,716 - Ludwig Institute for Cancer Research) profiles into the pUC 18 vector. Reverse transcription of tissue mRNA and cDNA amplification were performed under low stringency conditions."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AW381028 525 bp mRNA linear EST 04-FEB-2000
CM1-HT0285-101199-036-h05 HT0285 Homo sapiens cDNA, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Fax: +55-11-2707001

Email: asimpson@ludwig.org.br
This sequence was derived from the FAPESP/LICR Human Cancer Genome Project. This entry be seen in the following URL (http://www.ludwig.org.br/scripts/gethtml2.pl?tl=CM1&t2=CM1-HT0285-101199-036-h05&t3=1999-11-10&t4=1)
                                                                                                                                                                 805 TWATTTTTTTAAAAAAAAAAAATAWWWAAATTAAYTTTAGTTCCWWAAAAATGAGATTA 746
                                                                                                                                                                                                                           67 GTTTTACCTTCAGAAGAATATTTAGTTTCACTCAGGTTTTTCAAAGCTACGCTGTCCCCC 126
                                                                                                                                                                                                                                                                            45 GGCTCCATGATATGCTATATTGGTTTTACCTTCAGAAGAATATTTAGTTTCACTCAGGTT 104
                                                                                                                                                                                                                                                                                                                                     127 AAAAAACGAAACAAAAAAAAAAACAACCTTTTTAAGAGTTGATGGCTACTCATTTGATC 186
                                                                                                             99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Laboratory of Cancer Genetics
Ludwig Institute for Cancer Research
Rua Prof. Antonio Prudente 109, 4 andar, 01509-010, Sao Paulo-SP,
                                                                                                             7 TAAGTIGITTCAGGCATAAAATTTGAAATAAATTATGAGGCTCCATGATATGCTATATTG
                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eutele
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 525)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .;
.;
                                                      ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 525;
  Length 957;
                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HCGP http://www.ludwig.org.br/ORESTES.
The FAPESP/LICR Human Cancer Genome Project
Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 40.4; DB 10;
Pred. No. 87;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                86;
                                                      82;
  DB 17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pred. No. 87;
0; Mismatches
18.0%; Score 40.6; I
40.1%; Pred. No. 58;
                                                   27; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /organism="Homo sapiens"
/db_xref="taxon:9606"
/clone_lib="HT0285"
/dev_stage="Adult"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Seq primer: puc 18 forward
High quality sequence stert: 36
High quality sequence stop: 112.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Contact: Simpson A.J.G.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AW381028.1 GI:6885687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 51.7%;
Matches 92; Conservative
                            40.18;
                            Best Local Similarity 40.1
Matches 73; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1, .525
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
```

```
B83740.1 GI:2896202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity 54.4*
Matches 80; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       108
                                                                                                                               ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                              LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM
                                                                                                                                                                                                                                            REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    JOURNAL
MEDLINE
COMMENT
                                                                                                                                                                                                                                                                                                  JOURNAL
                                           RESULT 14
AU071524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           B83740/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                ub.342/39
NPOSSG02STIP1000 Developing stem Medicago truncatula cDNA clone NPOSSG02ST 5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                      Medicago truncatula
Eukaryota, Viridiplantae, Streptophyta, Embryophyta, Tracheophyta,
Spermatophyta, Magnoliophyta, eudicotyledons, core eudicots,
Rogidae, eurosids I, Fabales, Fabaceae, Papilionoideae, Trifolieae,
1398 GGCCCAAAGCTTTACTATATAAAGTTACTGCAAGGTACAAAAGTAAAAGTCTGTACAGCT 339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 71 TACCTTCAGAAGAATATTTAGTTTCACTCAGGTTTTTCAAAGCTACGCTGTCCCCCAAAA 130
                                                           158 TIGITICAGACTTATAATTIGTAGTAATTAAAATGATT--TITTTTTGCCAGTTIGGTIG 101
                                                                                           338 TTTAGCATAACTGCTGTCCCAGAAAGCAATTTAAATTATGCAATCAGCAGATTAAGGA 279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Medicago.
1 (bases 1 to 475)
1e, X.-Z., Shadle,G., Scott,A.D., Harris,A.R., Gonzales,R.A., Bell,C.J., Flores,H.R., Inman,J.T., Weller,J.W., May,G.D. and Dixon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Expressed Sequence Tags from the Samuel Roberts Noble Foundation Medicago truncatula stem library moubulished (2000) On Jul 14, 2000 this sequence version replaced gi:9199516. Contact: Dixon RA
                                                                                                                               278 GACTATAGCTAGAGCTACAACTTCTGATATCTGTGTGAGAAAATCCTATTT 221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           11 TIGITICAGGCATAAAATTIGAAATAAATTATGAGGCTCCATGATATGCTATATTGGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /dev_stage="Pooled developmental"
/note="Vector: Lambda Zap; Contains a mixture of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Plant Biology Division
The Samuel Roberts Noble Foundation
2510 Sam Noble Parkway, Ardmore, OK 73402, USA
2510 Sam Noble Parkway, Ardmore, OK 73402, USA
Tel: 580 221 7302
Fax: 580 221 7302
Email: radixon@noble.org
Email: radixon@noble.org
Medicago Genome Initiative accession: MGI:S:17055
Insert Length: 685 Std Error: 0.00
Plate: 055 row: G column: 02
Seq primer: TCACACAGGAAACAGCTATGAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ch 17.8%; Score 40; DB 10; Length 475; Similarity 59.9%; Pred. No. 1.1e+02; 85; Conservative 0; Mismatches 55; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /organism="Medicago truncatula"
/db_xref="taxon:3880"
/clone="NF055G025T"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /clone_lib="Developing stem"
/tissue_type="stem"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           internodal stem segments
67 c 55 g 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        131 AACGAAACAAAACAAAAAACA 152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              40 AAAAAAAAAAAAAAAAAAAAAAA 19
                                                                                                                                                                                                                                                                                                                                  BE325739.2 GI:11936314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
Matches 85; Conserval
                                                                                                                                                                                                                                                                                                                                                                        barrel medic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             182
                                                           105
                                                                                                                                                                                                                                                                                                         ACCESSION
VERSION
KEYWORDS
RCE
RGANISM
                                                                                                                                                                                                                           RESULT 13
BE325739/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                               DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           유
                                                                                       엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                         ઠે
                                                                                                                               ò
                                                                                                                                                                g
```

```
AU071524 AU071524 Dictyostelium discoideum SS (H.Urushihara) Dictyostelium discoideum SS (H.Urushihara) Dictyostelium discoideum cDNA clone SSB723, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               B83740 647 bp DNA linear GSS 12-MAY-2000
CpG0090B CpIOWAgDNAl Cryptosporidium parvum genomic, DNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /clone lib="Dictyostelium discoideum SS (H.Urushihara)"/dev stage="slug" 82 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Cryptosporidium parvum
Eukaryota; Alveolata; Apicomplexa; Coccidia; Eimeriida;
Eukaryota; Alveolata; Apicomplexa; Coccidia; Eimeriida;
Cryptosporidiidae; Cryptosporidium.

E 1 (bases 1 to 647)
S Strong, W.B. and Nelson, R.G.
Preliminary profile of the Cryptosporidium parvum genome: an expressed sequence tag and genome survey sequence analysis
L Mol. Biochem. Parasitol. 107 (1), 1-32 (2000)
E 2018381.
Contact: Nelson, R. G.
Contact: Nelson, R. G.
Depts. of Medicine & Pharmaceutical Chemistry
San Francisco General Hospital-University of California, San
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           7 TAAGTTGTTTCAGGCATAAAATTTGAAATAAATTATGAGGCTCCATGATATGCTATATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             67 GITITACCITCAGAAGAATAITIAGITICACICAGGITITITCAAAGCIACGCIGICCCC
                                                                                                                                                                               Dictyostelium discoideum.

SM Dictyostelium discoideum

Eutraryota: Mycetozaa: Dictyosteliida; Dictyostelium.

Eutraryota: Mycetozaa: Dictyosteliida; Dictyostelium.

E I (basea: Lto 208)

S Urushihara,H.

Developmental cDNA in Dictyostelium discoideum (1999)

L Unpublished (1999)

Concact: Hideko Urushihara

Institute of Biological Sciences
Unpublished (1993)

Concact: Hideko Urushihara

Institute of Biological Sciences
Unpublished (1999)

Concact: Hideko Urushihara

Institute of Biological Sciences
Unpublished (1999)

Fel: 81-298-53-4664

Fax: 81-298-53-4664

Fax: 81-298-53-6614

Fenail: hideko@biol.tsukuba.ac.jp

PROJECT = Dictyostelium discoideum cDNA project in Japan.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 208;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   67; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /organism="Dictyostelium discoideum"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 39.8; DB 9;
Pred. No. 1.8e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        127 AAAAACGAACAAAACAAAAAAAA 153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /db_xref="taxon:44689"
/clone="SSB723"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       7 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Cryptosporidium parvum.
                                                                                                                          AU071524.1 GI:5161713
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    17.78;
54.48;
```

```
us-09-765-231a-58.rst
```

```
/db xref="taxon"
/db xref="taxon"
/clone_lib="CplOWAgDNA1"
/lab hoster="c coli XL2 Blue MRF" | /lab hoster="c coli XL2 Blue MRF" |
/note="Vector: pallueScript II (SK-); Site 1: EccRV; C.
/note="vector: pallueScript II (SK-); Site 1: EccRV; C.
parvum (IOWA isolate) genomic DNA was hydrodynamically
sheared to produce fragmente having a tight size
distribution between 2-4 kb by Dr. Yvonne Thorstenson of
the Stanford DNA Sequencing and Technology Center
(http://sequence-www.stanford.edv/shear.htm
). The randomly sheared gDNA was chromatographed on
Sephacryl 5-400 to remove any small fragments and DNA
eluting in the void volume was subcloned into an EcoR
V-digested, alkaline phosphatase-treated pBlueScript II
(SK-) vector and transformed into E. coli strain XL2 Blue
MRF'. Recombinant clones from the first plating of the
library were selected for sequence analysis using T3 and
T7 primers."

92 c. 90 g. 282 t
Box 0811, San Francisco, CA 94143-0811, USA
Tel: 415 206 8846
Fax: 415 206 3353
Email: malaria@itea.ucsf.edu
Submitted sequence has been edited to remove vector sequences 5' to the insert, to correct miscalled bases and assign uncalled (N)
bases throughout the sequence, and to terminate when base-calling
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /organism="Cryptosporidium parvum"
                                                                                                                                                                                                                                                                                                                                                                                  High quality sequence stop: 647.
Location/Qualifiers
                                                                                                                                                                                                                                                                   became ambiguous.
Seq primer: T3
Class: shotgun
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     183 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURES
```

81 AGAATATTTAGTTTCACTCAGGTTTTTCAAAGCTACGCTGTCCCCCAAAAAACGAAACAA 140

Query Match 17.7%; Score 39.8; DB 17; Length 647; Best Local Similarity 64.8%; Pred. No. 1e+02; Matches 59; Conservative 0; Mismatches 32; Indels 0

Gaps .; 0

141 AACAAAAAAACAACCTTTTTAAGAGTTGATG 171

570 ATGAAACTATAATGAAGATCAGATTGGATG 540

Search completed: June 9, 2003, 10:23:43 Job time : 1060 secs

us-09-765-231a-58.rng

Н

Human immune syste Human breast cance Chemically treated Human polynucleoti Human immune syste

Human prostate exp cDNA encoding huma Human stromal cell Tumour suppressor

Human immune/haema Human prostate exp

Signal transductio Rat differential t Human polynucleoti

Human immune syste Human immune syste

Borrelia burgdorfe

Human immune syst Human metastasis

× ď

48.4 411 440 440 38.2 38.3

0000000

Score

Result Š

Drosophila melanog Human immune syste Human chemically m Human digestive sy

Human metastasis a Human prostate exp

Human immune syste

Drosophila melanog Human immune syste Human YAP CDNA. H

Gene #1661 used to Human chemically p Human immune syste

breast cance growth arres

Human

protein phos

Title: Perfect score:

Sequence:

, ,

OM nucleic

Run on:

Scoring table:

Searched:

8 8

nimum Maximum Database

```
Substantially purified protein, polypeptide or their fragments, used to identify a biologically active compound or composition and treat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Osteoarthritis; infectious disorder; Crohn's disease; sepsis; human; wound healing; osteopathic; anti-arthritic, anti-inflammatory; vulnerary; antibacterial; antiallergic; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Osteoarthritis tissue-derived nucleic acid sequence #58.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Dotson S,
                                                                                                                                                         ABL34554
ABQ88918
ABL15414
ABL34188
ABN80119
                                                                                                                                                                                                                                 AAK88641
ABL34175
AAL18969
ABL92218
ABL49321
ABL49321
                                                                                                                                                                                                                                                                                                                        AAK55869
ABV22830
ABV28660
                                                       ABN95163
ABK40070
                                                                                                                            AAT30347
ABL33208
                                                                                                                                                                                                                                                                                                                                                                                                                             AAH81841
AAI89390
ABL33350
                                                                                                                                                                                                                                                                                                                                                                    AAV07076
                                                                                                                                                                                                                                                                                                                                                                                     AAD38589
                                                                                                                                                                                                                                                                                                                                                                                                 AAS46359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ABL34078
                                                                                                                                                                                                                                                                                                                                                                                                                  ABK31268
                           AAV05164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               o,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            18-JAN-2001; 2001WO-US00016.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAH23128 standard; DNA; 225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         18-JAN-2000; 2000US-0176523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Vasanthakamur
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                     1479
7924
40388
85474
5153
6725
6725
3002
3002
113515
113515
11049
11049
1132
                                                                                                                                                                                                                                                                                                                                                                    3541
3541
10609
10609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (PHAA ) PHARMACIA CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2001-451914/48.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       91
                                         \begin{array}{c} 2 & 2 & 3 & 3 & 3 & 3 & 3 & 3 & 3 \\ 2 & 3 & 2 & 3 & 2 & 3 & 2 & 3 & 3 \\ 2 & 3 & 2 & 3 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 \\ 2 & 3 & 3 & 3 \\ 2 & 3 & 3 &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO200153531-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 17-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Phippard D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               26-JUL-2001
                          AAH23128;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 1
AAH23128
Osteoarthritis tis
Methanococus jann
DNA transcription
Human chemically m
Chemically treated
Human gene regulat
Signal transductio
Buchnera sp. genom
Human immune syste
                                                                                             7, 2003, 14:33:54 ; Search time 154 Seconds (without alignments) 3290.257 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                       Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Description
                                                                                                                                                      US-09-765-231A-58
225
1 tgatggtaagttgtttcagg.....attaggaatttttttt
          GenCore version 5.1.6
Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                                                         bl number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                               2185239 seqs, 1125999159 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAH23128
AAV21209
                                                                                                                                                                                                                                                                                                                                                                Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                   nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ABN80174
ABL70557
AAS61214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ABK31314
ABA92787
ABL33263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ABK28306
                                                                                                                                                                                                                  IDENTITY_NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                      seq length: 0
seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    225
1664976
5518
6809
6809
6809
640681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.0
21.5
18.2
17.8
17.8
17.8
17.8
```

Claim 1; Page 137; 144pp; English.

mammalian osteoarthritis

```
osteoarthritis tissues. The sequences are useful as probes and for the diagnosis or prognosis of mammalian osteoarthritis. The polynucleotides and polypeptides of the invention are useful for generating diagnostic reagents, as targets for small molecula development, generating of the therapeutics, and cloning genes. Specific antibodies are used to generate enzyme linked immunosorbent assays for detection of osteoarthritis. The invented molecules can be used to treat osteoarthritis or to analyse the disease—modifying activity of osteoarthritis drugs. Other disorders treatable using the nucleic acid sequences include atopic, inflammatory and infectious disorders e.g. Crohn's disease and sepsis, and wound
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATATTGGTTTTTACCTTCAGAAGAATATTTAGTTTCACTCAGGTTTTTCAAAGCTACGCTG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATATTGGTTTTACCTTCAGAAGAATATTTAGTTTCACTCAGGTTTTTCAAAGCTACGCTG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCCCCCAAAAAACGAAACAAAACAAAAAAAAACAACTTTTTAAGAGTTGATGGCTACTCAT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                       Sequences AAH23071-23152 represent nucleic acid sequences derived from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGATGGTAAGTTGTTTCAGGCATAAAATTTGAAATAAAATTATGAGGCTCCATGATATGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                rgarggraagtrgrrrcaggcaraaaarrrgaaaraaarrrargaggcrccargarargcr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Methanococcus jannaschii; methanogenic archaeon; circular chromosome;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Complete genome sequence of methano-genic archaeon, Methanoccoccus jannaschii - useful in identification of M. jannaschii genome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 genome; autotrophic; extrachromosomal element; identification; ds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 225;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           rrdarcrdcrcrdcrdarcaarraggaarrrrrrrrrr 225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%; Score 225; DB 22;
100.0%; Pred. No. 1.2e-45;
ive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 225 BP; 72 A; 38 C; 35 G; 80 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Methanococcus jannaschii circular chromosome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (UNII ) UNIV 11LLINOIS FOUND.
(UVJO ) UNIV JOHNS HOPKINS SCHOOL MEDICINE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                White OR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAV21209 standard; DNA; 1664976 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Venter JC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            97WO-US14900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            96US-0024428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             est Local Similarity 100.
Matches 225; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Methanococcus jannaschii
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                INST GENOMIC RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 1998-169145/15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Smith HO,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO9807830-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            22-AUG-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            22-AUG-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10-NOV-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        26-FEB-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAV21209;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             uery Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Bult CJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GENO-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     healing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAV21209
ID AAV2
XX
AC AAV2
XX
DT 10-h
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FYX XX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX XX BX
ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
```

```
151523 AAAAATCTATAAAAATCAATTATTACTCTTTTTCCAATACTCTTTAATTTGTTTTTTATC 151582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           151403 TAAATCTCTGCAGCCCTTCTATTTCCATCATTATTATAGCTACATGTTTTGGTAAATTG 151462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  151522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  psoriasis, Rieger's syndrome, neurological disorder; erythropolesis, neurodegenerative disorder; Waardenburg syndrome, Niemann-Pick disease; mayelodysplastic syndrome; myocardial infarction; hypertension; arthritis, anglogenesis; congenital heart disease; HDR syndrome; gene therapy; polyglutamine disorder; solid tumour.
                                                                                                                                                                                                                          Localitying tragments of the paraget mucleotide sequences, comparising: (a) data storage means comprising the nucleotide sequences, comparising: (a) data storage means comprising the nucleotide sequence of the 1664976, 58407 or 16550 by sequence (see AAV21201) and AAV21211), or a nucleotide sequence of the 1664976 sequence to the nucleotide sequence of the data storage means to target sequence to the nucleotide sequence of the data storage means to identify a homologous sequence, and (c) retrieval means for obtaining the homologous sequence. The method, which is based on whole genome random sequencing of an autotrophic archaeon M. Jannaschii, the genome of which consists of 3 physically distinct elements, a large circular extra-chromosomal element (the 58407 bp sequence given in AAV21201), and a small circular extra-chromosomal element (the 1650 bp sequence given in AAV21211), can be used in the identification of M. jannaschii genome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DNA transcription associated gene; peptide nucleic acid; PNA-oligomer; PNA, cytosine methylation state; SNP; retroviral infection; gene; ds; single nucleotide polymorphism; adenosine deaminase deficiency, cancer; viral infection; Sezary syndrome; haematological disorder; tuberculosis; immunological disorder; Werner syndrome; developmental disorder;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 1664976 BP; 568133 A; 264649 C; 258701 G; 573392 T; 101 other;
                                                                                               The present sequence represents the complete 1.66-megabase pair genome sequence of the Methanococcus jannaschii circular chromosome. The present invention describes M. jannaschii open reading frames from the genome sequence. The invention also describes a computer based system for identifying fragments of the M. jannaschii genome that are
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              67 GITITACCTICAGAAGAATATITAGITITCACTCAGGITITITCAAAGCTACGCTGTCCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                151463 retritarcaanageerericiaaaarerreregraaritiraaaaereeggagingret
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         7 TAAGTIGITICAGGCATAAAATTIGAAATAAATTATGAGGCTCCATGATATGCTATATIG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAAAAACGAAACAAAAAAAAAAAACAACCTTTTTAAGAGTTGATGGCTACTCATTTGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 48.4; DB 19; Length 1664976;
Pred. No. 0.029;
0; Mismatches 101; Indels 0; G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DNA transcription associated complementary genomic DNA #90.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         151583 TTACCCAAAATCCCCACCTATTAGGAATTT 151612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              187 TGCCTCCTCTGCTGAATCAATTAGGAATTT 216
                                                 Claim 13; Page 152-585; 614pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ABK28306/c
ID ABK28306 standard; DNA; 5518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 21.5%;
Best Local Similarity 51.9%;
Matches 109; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       23-APR-2002 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO200192565-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Unidentified.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           06-DEC-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ABK28306;
  fragment
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ठ
```

Berlin K;

(first entry)

15-JUL-2002

```
The invention relates to a nucleic acid, which comprises a segment of the chemically pretreated DNA of genes associated with DNA transcription from one of 346 sequences, and an oligomer in particular an oligonucleotide or peptide nucleic acid (PNA)-oligomer that hybridiess to or is identical to the chemically pretreated DNA of genes associated with DNA transcription. The set of oligomer probes are useful for detecting the cytosine methylation state and/or single nucleotide polymorphisms (SNPs) in a chemically pretreated genomic DNA. The nucleic acids are useful for diagnosing or treating diseases associated with DNA transcription (particularly with the methylation status) e.g. adenosine deaminase deficiency, viral infection, retroviral infection, Sazary syndrome, tuberculosis, developmental disorders, psoriasis, Rieger's syndrome, tuberculosis, developmental disorders, psoriasis, Rieger's syndrome, tuberculosis, developmental disorders, psoriasis, Rieger's syndrome, cuberculosis, developmental disorders, psoriasis, Rieger's syndrome, infarction, hypertension, angiogenesis, erythropoiesis, congenital heart disease, HDR syndrome, arthritis, polyglutamine disorders, solid tumours or cancer. Sequences ABRZ8127-ABK28472 represent DNA transcription associated genomic DNA molecules of the invention.

Note: The sequence data for this parent did not form part of the printed specification by experienced in electronic format directly from the
                                                                                                                                                                                                                                                                                                                              New nucleic acids or oligomers, useful for diagnosing or treating diseases associated with DNA transcription, e.g. immunological disorders, Werner syndrome, psoriasis, myocardial infarction, solid
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 1; SEQ ID No 180; 32pp; English
                                                                  06-APR-2000; 2000DE-1019058.
07-APR-2000; 2000DE-1019173.
30-JUN-2000; 2000DE-1032529.
01-SEP-2000; 2000DE-1043826.
                        06-APR-2001; 2001WO-EP03973
                                                                                                                                                                                                                                       Olek A, Piepenbrock C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         European Patent Office.
                                                                                                                                                                                        (EPIG-) EPIGENOMICS AG
                                                                                                                                                                                                                                                                                    WPI; 2002-090046/12
                                                                                                                                                                                                                                                                                                                                                                                                     tumours or cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       윱
ઠ
```

4028 TTACTTAATTAATAATACTAAATATAATACTTCAAACTCTTAAAAACTAATTACTCCTAA 3969 3968 AATAAAAAATACTTAATATAAAAACTACTATTTTTAAATTAAATTACAACTTAATCTTATT 3909 127 AAAAAACGAAACAAAAAAAAAAAAACTTTTTAAGAGTTGATGGCTACTCATTTGATC 186 67 GITTIACCTICAGAAGAATATTTAGTTTCACTCAGGTTTTTCAAAGCTACGCTGTCCCCC 126 99 TAAGTIGITICAGGCATAAAATITIGAAATAAATTATGAGGCTCCATGATATGCTATATTG 0; Gaps Ouery Match
18.2%; Score 41; DB 24; Length 5518;
Best Local Similarity 51.4%; Pred. No. 0.87;
ptches 95; Conservative 0; Mismatches 90; Indels (Sequence 5518 BP; 1899 A; 52 C; 1031 G; 2536 T; 0 other; 3908 TAACT 3904 TGCCT 191 187 8

ABN80174 standard; DNA; 6809 BP

ABN80174;

ABN80174/c ID ABN80 XX AC ABN80

```
The invention relates to a nucleic acid (I) comprising a sequence at least 18 bases in length of a segment of chemically pretreated DNA (II) of genes associated with development selected from 87 genes listed in the specification such as ACCPN, ADRN, or AFDI and comprising one of 350 sequences (ABN79984-ABN80333) or their complements. The invention is useful for the diagnosis or therapy of diseases associated with compense, in particular disease related to homeobox containing genes (HOX), like diabetes, cancer, apoptosis related diseases, syndromes associated with congenital heart disease, epilepsy, diseases related to histone deacetylation, Currarino syndrome, diseases related with the development of the brain and limb girdle muscular dystrophy and dwarfism. Oligomers specific to each of the genes are useful for detecting the methylation state of all CpG dinucleotides within the 350 sequences or (II) and their complements sequences, (II) and cheir complements and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1324 ACAAAAACTATITAAATTAAATCCGGTCTATCAATTTTTCGTTTTACTACAATTACTTT 1265
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          77 CAGAAGAATATTTAGTTTCACTCAGGTTTTTCAAAGCTACGCTGTCCCCCAAAAAACGAA 136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           single nucleotide polymorphisms (SNPs).

Note: The sequence data for this patent did not form part of the printed specification but is based on sequence information supplied to Derwent by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Novel nucleic acid useful for diagnosis and therapy of diseases associated with development genes such as diabetes, comprises a sequence of a segment of chemically pretreated DNA of genes associated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        as oligomer probes for detecting the cytosine methylation state and/or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1384 CACAAATAAAAACCAATATATATCGTAACACCACACTCTATTCATAATTATTTTATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                17 CAGGCATAAAATTTGAAATTAAGAGCTCCATGATATGCTATATTGGTTTTACCTT
                                                                                    Human, development, homeobox gene; HOX; diabetes; cancer; apoptosis; heart disease; epilepsy; histone deacetylation; muscular dystrophy; dwarfism; single nucleotide polymorphism; SNP; cytosine methylation; antidiabetic; cytostatic; antidonvulsant; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ;
0
                                          Human chemically modified disease associated gene SEQ ID NO 191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 17.8%; Score 40; DB 24; Length 6809; Best Local Similarity 54.9%; Pred. No. 1.6; Matches 79; Conservative 0; Mismatches 65; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 6809 BP; 1792 A; 270 C; 1625 G; 3122 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1264 rcaaaacrraarcaraaarrcrrr 1241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 1; SEQ ID NO 191; 27pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   137 ACAAAACAAAAAAAACAACCTTTTT 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ϋ́
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Berlin
                                                                                                                                                                                                                                                                                                                                                                                                         30-JUN-2000; 2000DE-1032529
01-SEP-2000; 2000DE-1043826
                                                                                                                                                                                                                                                                                                                                                               02-JUL-2001; 2001WO-EP07536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             the European Patent Office.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Olek A, Piepenbrock C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (EPIG-) EPIGENOMICS AG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2002-130908/17.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      with development
                                                                                                                                                                                                                                                                     WO200200927-A2
                                                                                                                                                                                                      Homo sapiens.
                                                                                                                                                                                                                                                                                                                  03-JAN-2002
                                                                                                                                                                                                                             Synthetic.
ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
```

RESULT 6

```
The invention relates to a nucleic acid comprising a sequence of at least 18 bases of a segment of chemically pretreated DNA of genes associated with cell signalling. The activity of the modified sequences of the invention may be described as cytostatic. The object of the invention is to provide the chemically modified DNA of genes associated with cell signalling, as well as oligonucleotides and/or PNA-oligomers for detecting cytosine methylations, as well as a method which is particularly suitable for the diagnosis and/or therapy of genetic and epigenetic parameters of genes associated with cell signalling. The chemically modified DNA provided by the invention is useful for diagnosis and therapy of diseases such as solid tumours and cancer. The sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1384 CACAAATAAAACCAATATATATGTAACACCACACTCTATTCATAATTTCTTTAATTAT 1325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1324 ACAAAAACTATTTAAATTAAATCCGTCTATCAATTTTTTGGTTTTACTACAAATTACTTT 1265
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         printed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               77 CAGAAGAATATTTAGTTTCACTCAGGTTTTTCAAAGCTACGCTGTCCCCCAAAAAAGGAA 136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Nucleic acid, useful for diagnosis and therapy of diseases associated with cell signalling e.g. cancer, comprises chemically modified genomic sequences of genes associated with cell signalling
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              17 CAGGCATAAAATTTGAAATAAATTATGAGGCTCCATGATATGCTATATTGGTTTTACCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 given in records ABL70111-ABL70626 represent chemically pre-treated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              specification, but is based on sequence information supplied by the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           this patent is not represented in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                     Cell signalling; cytosine methylation; cell signalling disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 40; DB 24; Length 6809;
Pred. No. 1.6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 6809 BP; 1792 A; 270 C; 1625 G; 3122 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          65; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 1; SEQ ID NO 447; 24pp+sequence listing; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      genomic DNA's of genes associated with cell signalling
Note: The sequence data for this patent is not represe
                                                                                                                                                               Chemically treated cell signalling DNA sequence#224.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1264 TCAAAACTTAATCATAAATTCTTT 1241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                137 ACAAAACAAAAAAACAACCTTTTT 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Berlin K;
                                        ABL70557 standard; DNA; 6809 BP
                                                                                                                                                                                                                          cancer; tumour; cytostatic; ds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                17.8%;
54.9%;
                                                                                                                                                                                                                                                                                                                                                                                         29-JUN-2001; 2001WO-EP07471.
                                                                                                                                                                                                                                                                                                                                                                                                                               30-JUN-2000; 2000DE-1032529.
01-SEP-2000; 2000DE-1043826.
                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity 54.9
les 79; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Piepenbrock C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 European Patent Office.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (EPIG-) EPIGENOMICS AG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2002-154758/20.
                                                                                                                                                                                                                                                                                                           WO200202807-A2.
                                                                                                                        01-JUL-2002
                                                                                                                                                                                                                                                                  Unidentified
                                                                                                                                                                                                                                                                                                                                               10-JAN-2002.
                                                                                ABL70557;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   olek A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
RESULT 5
ABL70557/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     요
                                                                                                                                                                                                                                                                                                                                                                                                                     $$#$X#X#X#######
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SSSSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠ
```

```
The invention relates to 224 nucleic acid sequences comprising at least 18 bases of a chemically pretreated gene associated with gene regulation selected from 43 known genes (or complementary sequences). The chemical pretreatment converts cytosine bases unmethylated at the 5-position to uracil or another base with hybridisation behaviour dissimilar to cytosine, to enable analysis of cytosine methylations. The DNA sequences, oligomers for sets/arrays) and method are useful in the diagnosis of diseases (or predisposition to diseases) associated with gene regulation and in therapy of such diseases, by casociated with gene regulation and in therapy of such genes, kits are provided. They are especially useful in diagnosis and therapy of e.g. severe combined immunodeficiency disease, cardiac disorders, haemophila, solid tumours and cancer. Werner Syndrome, asthma, HDR Syndrome, Seather Chotzen syndrome, werner syndrome, asthma, HDR Syndrome, Seather Chotzen syndrome, seather chotzen syndrome, seather chotzen syndrome, seather chotzen syndrome, seather chotzen syndrome, seather chotzen syndrome, seather chotzen syndrome, seather chotzen syndrome, seather chotzen syndrome, seather chotzen syndrome, seather chotzen syndrome, seather chotzen syndrome, seather chotzen syndrome, seather chotzen syndrome, seather chotzen syndrome, seather chotzen syndrome, seather chotzen syndrome, seather chotzen syndrome, seather chotzen syndrome, seather chotzen syndrome, seather chotzen syndrome, seather chotzen syndrome, seather chotzen syndrome, seather chotzen syndrome, seather chotzen syndrome, seather chotzen syndrome, seather chotzen syndrome, seather chotzen syndrome, seather chotzen syndrome, seather chotzen syndrome, seather chotzen syndrome, seather chotzen syndrome, seather chotzen syndrome, seather chotzen syndrome, seather chotzen syndrome, seather chotzen syndrome, seather chotzen syndrome, seather chotzen syndrome, seather chotzen syndrome, seather chotzen syndrome, seather chotzen syndrome, seather chotzen syndrome, seat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                     immunodeficiency;
                                                                                                                                                                                                                                                                  Human; Gene regulation-associated gene; severe combined immunodeficiency; cardiac damage; inflammatory response; Haemophila; Werner syndrome; asthma; HDR syndrome; congenital heart defect; Saethra-Chotzen syndrome; renal disease; Preeclampsia; cardiac allograft vascular disease; colorectal cancer; thyroid cancer; osophageal cancer; ds; tumour; immunostimulant; cardiant; antiinflammatory; coaqulant; antiasthmatic; nephrotropic; gynecological; anti-tumour; immunosuppressive; cytostatic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       regulation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New nucleic acid sequences from chemically modified genes associated with gene regulation, useful for analysing cytosine methylations for diagnosis and therapy of diseases e.g. severe combined immunodeficiency
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     precclampsia, graft versus-host disease. The present sequence is a sequence included in the sequence data for this specification and associated with the human gene regulation-associated genes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                of the printed specification, but was obtained in electronic format directly from WIPO at
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 24; Length 6809;
                                                                                                                                                                                                             Human gene regulation-associated gene oligonucleotide #169.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Note: The seguence data for this patent did not form part
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 6809 BP; 1792 A; 270 C; 1625 G; 3122 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             65;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
17.8%; Score 40; DB 2
Best Local Similarity 54.9%; Pred. No. 1.6;
Matches 79; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               :tp.wipo.int/pub/published_pct_sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 1; SEQ ID No 173; 26pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Berlin K;
                            AAS61214 standard; DNA; 6809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            06-APR-2000; 2000DE-1019058.
07-APR-2000; 2000DE-1019173.
30-JUN-2000; 2000DE-1032529.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   06-APR-2001; 2001WO-EP03968
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-SEP-2000; 2000DE-1043826
                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Olek A, Piepenbrock C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (EPIG-) EPIGENOMICS AG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2002-017470/02.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO200177375-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens.
                                                                                                                                                 29-JAN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          18-OCT-2001
                                                                                        AAS61214;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                disease
AAS61214/c
```

9

17 CAGGCATAAAATTTGAAATAAATTATGAGGCTCCATGATATGCTATATTGGTTTTACCTT

ò

DB 24; Length 6809;

Ŋ

```
1324 acadadactatttadattadatcccirctatcadruttriccitttactacdadattactr 1265
                                  CAGAAGAATATTTAGTTTCACTCAGGTTTTTCAAAGCTACGCTGTCCCCCAAAAAACGAA 136
                                                                                                                                                                                                                                                     Human; signal transduction associated gene; cytosine methylation state; CpG island; signal transduction associated disease; solid tumour; cancer; antitumour; cytostatic; mutant; ds.
                                                                                                                                                                                                                                Signal transduction associated gene modified DNA #79.
                                                                                                    1264 TCAAAACTTAATCATAAATTCTTT 1241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                갻
                                                                               ACAAAACAAAAAAACAACCTTTTT
                                                                                                                                                               宙
                                                                                                                                                            ABK31314 standard; DNA; 6809
                                                                                                                                                                                                                                                                                                                                                                                                     30-JUN-2000; 2000DE-1032529.
01-SEP-2000; 2000DE-1043826.
                                                                                                                                                                                                                                                                                                                                                                                19-JUN-2001; 2001WO-EP07472
                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Piepenbrock C,
                                                                                                                                                                                                                                                                                                                                                                                                                                       (EPIG-) EPIGENOMICS AG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2002-147896/19.
                                                                                                                                                                                                                                                                                                                                  WO200200926-A2
                                                                                                                                                                                                         23-APR-2002
                                                                                                                                                                                                                                                                                                    sapiens
                                                                                                                                                                                                                                                                                                                                                           03-JAN-2002
                                                                                                                                                                                                                                                                                                              Synthetic.
                                                                                137
                                                                                                                                                                                   ABK31314;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Olek A,
                                                                                                                                       RESULT 7
ABK31314/c
                                                                                                                                                                                                                                                                                                    Homo
             용
                                                     g
                                                                                                   셤
                                                                                                                                                                                                                                                      ò
                                  ઠે
```

Oligonucleotide for diagnosis and therapy of diseases associated with signal transduction e.g. cancer, comprises chemically modified genomic sequences of genes associated with signal transduction Claim 1; SEQ ID No 157; 24pp; English

the present invention relates to chemically modified DNA sequences of signal transduction associated genee. The DNA sequences are chemically modified using a solution of bisulphite, hydrogen sulphite or contains a solution of bisulphite, hydrogen sulphite or call by the or detecting the cytosine methylation state (CpG islands) of these contains and method for the diagnosis and/or therapy of genetic and epigenetic parameters of gene associated with signal transduction. The genomic DNA ce g. cell lines, biopsies, blood, sputum, stool, urine, cerebral-spinal fluid, tissue embedded in paraffin such as tissue from eyes, intestine, kidney, brain, heart, prostate, lung, breat or liver, histologic object slides, and all their possible combinations. The sequences of the invention are useful for the diagnosis and therapy of diasense associated with signal transduction e.g. solid tumours and Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from the cancer. ABK31158-ABK31545 represent chemically pretreated genomic DNA sequences of different genes associated with signal transduction, or their complementary sequences.

Sequence 6809 BP; 1792 A; 270 C; 1625 G; 3122 T; 0 other;

European Patent Office.

32 AAATAAATTATGAGGCTCCATGATATGCTATATTGGTTTTACCTTCAGAAGAATATTTAG 91

ઠે

```
The present invention describes a gene (I) derived from Buchnera sp. containing the DNA (a) or (b), (a) has a fully defined base pair sequence selected from a table of sequences found in the Buchnera sp. genomic DNA of BA92787 given in the specification or is a DNA selected from complementary DNA sequences, and (b) is a DNA which hybridises with the DNA (a) and encodes a protein. Also described are: (1) a recombinant vector (II) containing (I); (2) a transformant (III) containing (II); (3) a genomic DNA of Buchnera sp. containing the sequence given in ABA92787; (4) a plasmid derived from Buchnera sp. containing DNA (c) or (d), (c) is a DNA containing a fully defined sequence given in ABA92788 or ABB92789 and (d) is a plasmid which hybridises with a DNA; and (5) a method for the preparation of a protein in which (III) is cultured and the expression protein of the objective protein is collected from the resultant culture. The DNA is useful for developing agricultural chemicals for exerminating cockroaches. The present sequence represents the present of the specifically claimed Buchnera sp. genomic DNA sequence from the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ;
0
                                                                                                                                  1384 CACAAÁTAAAACCAATATATATGGTAACACCACACTCTATTCATAATTTCTTTAATTAT 1325
                                                                                                                                                                                                                1324 ACAAAAACTATTTAAATTAAATCCGGTCTATCAATTTTTTGGTTTTACTACAAATTACTTT 1265
                                                                                                                                                                        77 CAGAAGAATATTTAGTTTCACTCAGGTTTTTCAAAGCTACGCTGTCCCCCAAAAAACGAA 136
                                                                                              17 CAGGCATAAAATTTGAAATAAATTATGAGGCTCCATGATATGCTATATTGGTTTTACCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 640681 BP; 237522 A; 83822 C; 84757 G; 234580 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cockroach-symbiotic bacterium; cockroach extermination; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 640681;
                                                          .
0
                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             17.0%; Score 38.2; DB 24;
55.7%; Pred. No. 7.7;
iive 0; Mismatches 58;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A genomic DNA of cockroach-symbiotic bacterium
                  17.8%; Score 40; DB 2 ilarity 54.9%; Pred. No. 1.6; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                        1264 TCAAAACTTAATCATAAATTCTTT 1241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 1; Page 16-230; 237pp; Japanese.
                                                                                                                                                                                                                                                    137 ACAAAACAAAAAAACAACCTTTTT 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Buchnera sp. genomic DNA SEQ ID NO:1.
                                                                                                                                                                                                                                                                                                                                                                                         BP
                                                                                                                                                                                                                                                                                                                                                                                    ABA92787 standard; DNA; 640681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           07-APR-2000; 2000JP-0107160.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     07-APR-2000; 2000JP-0107160.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (RIKA ) RIKAGAKU KENKYUSHO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best Local Similarity 55.7
Matches 73; Conservative
WPI; 2002-126043/17.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             JP2001292771-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   27-MAR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Buchnera sp.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 23-OCT-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Buchnera;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 circular;
                                                                                                                                                                                                                                                                                                                                                                                                                             ABA92787;
                                                                                                                                                                                                                                                                                                                                                  RESULT 8
ABA92787/c
                                                                                                                                                                        ò
                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                  셤
```

```
82 GAATATTTAGTTTCACTCAGGTTTTTCAAAGCTACGCTGTCCCCCAAAAAAGGAAACAAA 141
                                142 ACAAAAAAACAACCTTTTTAAGAGTTGATGGCTACTCATTTGATCTGCCTCCTCTGCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                11-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    11-JUN-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WO9856925-A1
                                                                                                                                                                                                                                                                                                                                                 07-MAY-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Bandman O,
                                                                                                                                                                                                                                                                                                             AAX05715
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ношо
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Key
                                                                                                                                                                                                                                                         AAX05715,
                                                                       ò
                                                                                                         원
                                                                                                                                             ò
                                                                                                                                                                               g
The present invention provides a number of human immune system associated
                                                      TITCACTCAGGITITITCAAAGCTACGCTGTCCCCCAAAAAACGAAACAAAAACAAAAAAA 151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        genes which are modified by the methylation of cytosines. The sequences can be used in the diagnosis and treatment of immune system disorders, including eye diseases such as retinopathy, neovascular glaucoma and macular degeneration, arteriosclerosis, anaemia, cancer, acute myeloid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Nucleic acid comprising fragment of chemically modified gene, useful for diagnosis and treatment of diseases associated with abnormal cytosine methylation -
                                                                                                                                                                                                                                                                                                                                                                                                                       antiarteriosclerotic; antianaemic; cytostatic; nootropic;
neuroprotective; anti-HIV; anticonvulsant; ophthalmological;
antirheumatic; antiarthritic; antidiabetic; antipsoriatic;
antiinflammatory; cancer; eye disease; arteriosclerosis; anaemia;
acute myeloid leukaemia; Alzheimer's disease; AIDS; epilepsy;
neurofibromatosis; rheumatoid arthritis; psoriasis; bowel disease;
                                                                                                                                                                                                                                                                                                                                                                                                        Human; immune system disease; cytosine methylation; antiasthmatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               leukaemia, Alzheimer's disease, AIDS, epilepsy, neurofibromatosis rheumatoid arthritis, psoriasis and inflammatory/ulcerative bowel diseases. The present sequence is a gene of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     16.9%; Score 38; DB 24; Length 12393; Llarity 49.5%; Pred. No. 5.2; Conservative 0; Mismatches 100; Indels n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 12393 BP; 3484 A; 219 C; 2406 G; 6282 T; 2 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 1; SEQ ID NO 1236; 32pp + Sequence Listing; German.
                                                                                                                                                                                                                                                                                                                                                                    Human immune system associated gene SEQ ID NO: 1236.
                                                                                                                                                                                                                                           .263/c
ABL33263 standard; DNA; 12393 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Berlin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  30-JUN-2000; 2000DE-1032529.
01-SEP-2000; 2000DE-1043826.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                02-JUL-2001; 2001WO-EP07537
                                                                                                                                                                  198182 AAGATTTTTA 198172
                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                AACCTTTTAA 162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ບ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (EPIG-) EPIGENOMICS AG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Piepenbrock
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2002-130909/17.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local Similarity
Les 98; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WO200200928-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                26-MAR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              03-JAN-2002
                                                                                                                                152
                                                                                                                                                                                                                                                                                              ABL33263;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     gene; da
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Olek A,
                                                                                                                                                                                                                                                                                                                                                                                         £X8X000000000X8
                                                                                                                                                              g
                                                        ð
                                                                                        8
                                                                                                                              ò
```

6387 ААААААСТТААААААААААТТТТААААТААТТАТАААТТАААТАААСТТТТТСТТТАААА 6328

요.

8

22 ATAAAATTTGAAATAAATTATGAGGCTCCATGATATGCTATATTGGTTTTACCTTCAGAA

81

ö

```
5267 TAAATAAAAATCAAATATACTCAATTCTAACTAATTCTCCCGCTCTCTCAAATAACCTTA 6208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Disease), and in the stimulation of cell proliferation. Antagonists of the protein are useful in treating inflammation (e.g. Addison's disease, allergies and anemia), and disorders associated with cell proliferation (including various cancers like leukemia, and cancers affecting bone, breast and brain). Complementary polynucleotides are useful in detecting polynucleotides that encode PROPHO, useful in the diagnosis of conditions associated with the expression of PROPHO, and in assays that detect activation or induction of various cancers. PROPHO is useful in producing antibodies or screening libraries of pharmaceutical agents in order to identify those that bind to PROPHO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      This DNA encodes a human protein phosphatase (PROPHO). Host cells containing a vector comprising the PROPHO nucleic acid are used for the recombinant production of the protein. PROPHO forms a composition in the treatment or prevention of applicates related disorders (e.g. Acquired Immune Deficiency Syndrome (AIDS), Alzheimer's Disease and Parkinson's
                                                                                                                                                                                                                                                                                                                         Protein phosphatase; PROPHO; apoptosis; AIDS; Alzheimer's Disease; Acquired Immune Deficiency Syndrome; Parkinson's Disease; inflammation; cell proliferation; Addison's disease; allergy; anemia; cancer; bone; leukemia; breast; brain; human; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        New substantially purified human protein phosphatase (PROPHO) - useful in the diagnosis, prevention or treatment of inflammation, cancer, and disorders associated with apoptosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /*tag= a
/product= "protein phosphatase (PROPHO)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 2270 BP; 693 A; 344 C; 515 G; 716 T; 2 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ï
                                                                                                                                                                                                                                                                                         Human protein phosphatase (PROPHO) encoding DNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Zhang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Lal P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Location/Qualifiers
70..1509
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 5; Fig 1A-G; 73pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Goli SK,
                                                                                6190
                                                                                                                                                                            ВÞ
                                                                                                                                                                          AAX05715 standard; DNA; 2270
                                             202 ATCAATTAGGAATTTTT
                                                                                6207 AACAATTTCTATCATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98WO-US11614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .97US-0873093
                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (INCY-) INCYTE PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Corley NC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1999-080906/07.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       P-PSDB; AAW94283
```

ö

Gaps

ö

71; Indels

Length 2270;

DB 20;

Score 37.4; DB Pred. No. 5.8; 0; Mismatches

16.6%; 53.0%;

l Similarity 53.0 80; Conservative

Query Match Best Local 8

2137 GAATAATACATAGGTTTTTCAAAAGTTATGTTTCATAAAGAATACAGAAAAGGAAAAT 2078

29 TTGAAATAAATTATGAGGCTCCATGATATGCTATATTGGTTTTACCTTCAGAAGAATATT 88

TTGACATACATTTTGATGTGTGTTAGGCTATACAGAATATACAAACCAAAGCTGTAT

2197

a ò 유

```
The invention relates to human breast cancer expressed polynucleotides (AAL07544-AAL26789) and methods of assessing whether a patient is affilted with breast cancer by examining the correlation between the expression of certain markers and the cancerous state of breast cells. The polynucleotides and encoded polypeptides are potential markers for detecting, diagnosing, monitoring, characterising treating and potentially preventing breast cancer. The polynucleotides and encoded polypeptides are also useful for isolating compounds with cytostatic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New peptide useful as a marker for the diagnosis of breast cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 37.2; DB 22; Length 778; Pred. No. 5.7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 778 BP; 220 A; 134 C; 180 G; 244 T; 0 other;
                                                                                                                                                                                                   Human breast cancer expressed polynucleotide 14319.
                                                                                                                                                                                                                                  Human; breast cancer; cell marker; cytostatic; ss.
                              2077 AGCCACATCCAATATCTCACAACTTCTAA 2047
 AACAACCTTTTTAAGAGTTGATGGCTACTCA 179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (MILL-) MILLENNIUM PREDICTIVE MEDICINE INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 1; Page 2564-2565; 3695pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Wang Y, Steinmann K;
                                                                                                        AAL21862 standard; cDNA; 778 BP
                                                                                                                                                                                                                                                                                                                                                                                     ; 2000US-0176077.
; 2000US-0189167.
; 2000US-0192099.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           16.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                    29-MAR.2000; 2000US-0193480.
15-MAY-2000; 2000US-0205230.
09-JUN-2000; 2000US-0211315.
                                                                                                                                                                                                                                                                                                                                                          10-JAN-2001; 2001WO-US00798
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000US-0220534
                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ouery Match
Best Local Similarity 55.4*
The 72; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2001-451856/48.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Xu Y,
                                                                                                                                                                                                                                                                                             WO200151628-A2
                                                                                                                                                                      07-DEC-2001
                                                                                                                                                                                                                                                                  Ното варіенв
                                                                                                                                                                                                                                                                                                                                                                                                                     24-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    25-JUL-2000;
                                                                                                                                                                                                                                                                                                                           19-JUL-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Lillie J,
 149
                                                                                                                                        AAL21862;
                                                                           RESULT 11
                                                                                           AL21862
                                                                                                                                                        ઠે
```

ö

Gaps

. 0

58; Indels

0; Mismatches

27 ATTTGAAATAAATTATGAGGCTCCATGATATGCTATATTGGTTTTACCTTCAGAAGAATA 86

```
Growth arrest gene; B4B gene; cell proliferation; cancer; leukaemia; marker; gene therapy; human; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             leukaemia or other malignancies. Introduction of the isolated DNA in a vector that includes a suicide inhibition cassette can be used to arrest expansion of cells, in vivo or in vitro, e.g. useful in skin cell grafts and in lymphocytes containing a heterologous
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               codes for
to the B4B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   to express
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          cells - and related vectors, transformed cells and protein expressed in B for, e.g. gene therapy of leukaemia or diagnosis of cancer and immune status
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         This cDNA clone, the coding region of which is claimed, codes for a growth arrest protein (see AAW46489). It corresponds to the B4B gene, expression of which results in inhibition of callular proliferation. Human peripheral blood mononuclear calls were fractionated to recover high, intermediate and low density fractions. CDNA libraries from all 3 fractions were subjected to a differential display PCR. Bands unique to the intermediate density eample were reamplified, cloned and sequenced. A 101 bp insert was used to screen a cDNA library from intermediate density cells to isolate the 2.7 kb cDNA clone. This insert was
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             used to isolate a genomic fragment localised to the B4B gene to chromosome 20q12-q13.1. The isolated clone can be used to express functional B4B allele (by gene therapy) into a cell with a defective allele may be used to prevent development of pro-B-cell leukaemia or other malignancies. Introduction of the isolated DNA
                                                                                                                                                                                                                                                                                                                                                                                                                      Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (ACTI-) ACTIVATED CELL THERAPY INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                    /*tag= a
/note= "(Claim 4)"
                                                                                                                                                                                                                  AAV05164 standard; cDNA; 2705 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ruegg CL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 4; Fig 1; 26pp; English.
                                                                                                                                                                                                                                                                                                             Human growth arrest gene B4B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           96US-0021874
                                                                                                                                                                                                                                                                             (first entry)
                                                                                                         147 AAAACAACCT 156
                                                                                                                                     AAAAGTACCT 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Engleman EG, Laus R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 1998-086969/08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     P-PSDB; AAW46489
                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO9800544-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              27-JUN-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           28-JUN-1996;
                                                                                                                                                                                                                                                                             06-JUL-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                08-JAN-1998
                                                                                                                                     16
                                                                                                                                                                                                                                                AAV05164;
                                                                                                                                                                                     RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                                                      Key
                                                                                                                                                                                                     AAV05164
                                                                     g
                                                                                                                                                                                                                                                ò
                                                                                                        ò
                                                                                                                                     g
```

ö

Gaps

ö

Indels

0; Mismatches 66;

Query Match
Best Local Similarity 53.5%;
Matches 76; Conservative

Score 36.4; DB 24; Length 345; Pred. No. 8;

96

homologous or related genes, to produce compositions that modulate expression or function of the encoded protein, to map functional regions of the protein, to study associated physiological pathways, to genetically manipulate cells and plants. The encoded products are useful to screen for biologically active agents such as fungicides or

888888888888888

insecticides and to elucidate biochemical pathways. Sequence 345 BP; 97 A; 61 C; 48 G; 139 T; 0 other;

The invention relates to a novel nucleic acid of Arabidopsis thaliana comprising a sequence capable of hybridising under stringency to one of the 999 sequences referred to but not defined in the specification (ABQ85131-ABQ86129). The nucleic acid sequences are useful to identify

72 ACCTICAGAAGAATATITAGTITCACTCAGGTITTTCAAAGCTACGCTGTCCCCCAAAAA 131

 95 GAAATTATAAATCTTTTGTTTTAATCTCAAGATGTAATAATTTATGATCTTCACATAAAA 36

g

8 S

ò

g

ò

```
2647
                                                                                    98
                                                                                                   39 ITATGAGGCTCCATGATATGCTATATTGGTTTTACCTTCAGAAGAATATTTAGTTTCACT
                                                                                                                                                    Gaps
                                                                                                                              ch 16.3%; Score 36.6; DB 19; Length 2705; Similarity 57.4%; Pred. No. 9.3; 66; Conservative 0; Mismatches 49; Indels 0;
                                                                                                                                                                                                                                                                        Arabidopsis thaliana expressed polynucleotide SEQ ID NO 772.
                                                                                                                                                                                                                                                                                             Plant; Arabidopsis; transgenic; fungicide; insecticide; ds
                     Sequence 2705 BP; 729 A; 584 C; 627 G; 765 T; 0 other;
cytokine gene for in vivo expression.
                                                                                                                                                                                                         ABQ85902 standard; DNA; 345 BP
                                                                                                                                                                                                                                                                                                                                                                                                       27-JAN-2000; 2000US-178480P
                                                                                                                                                                                                                                                                                                                                                                                  86-JAN-2001; 2001US-0770791
                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                HAMILTON C M.
PRICE J L.
RAINES T M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MATHEW A V.
LEDFORD B L.
WOESSNER J P.
                                                                                                                                                                                                                                                                                                                  Arabidopsis thaliana.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RAMEAKA J G.
                                                     Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                             GORLACH J.
                                                                                                                                                                                                                                                                                                                                        US2002062014-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PAGE A.
                                                                                                                                                                                                                                                    05-SEP-2002
                                                                                                                                                                                                                                                                                                                                                             23-MAY-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                         Z
                                         Query Match
Best Local S
                                                                                                                                                                                                                               ABQ85902
                                                                                                                                                                                                                                                                                                                                                                                                                            (GORL/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RAIN/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RAME/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (PAGE/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (MOES/)
                                                                                                                                                                                               B085902
                                                                                                                                                                                     RESULT
                                                                                    ÷
                                                                                                         유
                                                                                                                                                                                                                                          ઠે
                                                                                                                                                   g
```

```
The invention relates to a novel method for diagnosing and detecting the progression of liver cancer, hepatocellular carcinoma or metastatic liver tumour in a patient, and differentiating metastatic liver cancer from hepatocellular carcinoma in a patient, involving detecting the level of expression of two or more genes represented in ABN93503-ABN97455 in a tissue sample. The method of the invention has hepatotropic, and
                                                                                                                                                      Gene; liver cancer; ds; hepatocellular carcinoma; hepatotropic; metastatic liver tumour; cytostatic; expression profile; diseasé state; disease progression; drug toxicity; drug efficacy; drug metabolism.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                neparocellular carcinoma or metastatic liver tumor in a patient, nvolves detecting the level of expression of two or more genes in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Diagnosing and detecting the progression of liver cancer,
                                                                                                                                                                                                                                                                                                                                                                                                                     Vockley JG;
                                                                                                                           Gene #1661 used to diagnose liver cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                     Peres-Da-Silva S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 1; SEQ ID NO 1661; 298pp; English.
                               BP
                               ABN95163 standard; DNA; 1479
                                                                                                                                                                                                                                                                                                                        02-OCT-2001; 2001WO-US30589.
                                                                                                                                                                                                                                                                                                                                                       02-OCT-2000; 2000US-237054P.
                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                     (GENE-) GENE LOGIC INC
                                                                                                                                                                                                                                                                                                                                                                                                                     Alvares C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2002-426119/45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  liver tissue sample
                                                                                                                                                                                                                                                        WO200229103-A2.
                                                                                             13-AUG-2002
                                                                                                                                                                                                                                                                                        11-APR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     nepatocell
                                                               ABN95163;
                                                                                                                                                                                                                                                                                                                                                                                                                     Horne D,
                                                                                                                                                                                                                            Homo
RESULT 14
             ABN95163
ID ABN9
```

New nucleic acid sequences of Arabidopsis thaliana and their encoded products are useful to produce transgenic plants, to screen for biologically active agents such as fungicides and insecticides and in

Claim 1; SEQ ID NO 772; 18pp + Sequence Listing; English

genetic studies

Yu Y; JP, Haas WD;

Price JL, Raines TM, Ledford BL, Woessner Davis KR, Allen K,

Hamilton CM, Pr A, Mathew AV, I r M, Slater T,

An Y, Hamil Page A, Ma Kricker M,

Gorlach J, A Rameaka JG, Garcia CA, R

Hurban P;

GARCIA C A. KRICKER M.

SLATER T.

HAAS W D.

(HAAS/)

DAVIS K R. ALLEN K.

HOFFMAN N. HURBAN P.

(HOFF/) (HURB/)

(ALLE/)

WPI; 2002-479265/51

Hoffman N;

or a peptide nucleic acid (PNA)-oligomer, comprising in

oligonucleotide

cytostatic activity. The method is useful for diagnosing and detecting the progression of liver cancer, hepatocellular carcinoma and metastatic liver carcinoma in a patient. The method is useful for identifying expression profiles which serve as useful diagnostic markers as well as markers that can be used to monitor disease states, disease progression, drug tefficacy and drug metabolism.

Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO at ftp.wipo.int/pub/published_pct_sequences. 888888888888888

Sequence 1479 BP; 432 A; 287 C; 266 G; 493 T; 1 other;

Gaps ö DB 24; Length 1479; Indels 36; Score 36.4; D Pred. No. 9.6; 0; Mismatches 16.2%; 58; Conservative Best Local Similarity **Ouery Match** Matches

ò g 188 GCCTCCTCTGCTGAATCAATTAGGAATTTTTTT 221 894 cécreceracrecerrecassas certracit 927

21-MAY-2002 (first entry) ABK40070; RESULT 15 ABK40070/

ABK40070 standard; DNA; 7924 BP

Human chemically pretreated gene sequence #76 strand 2.

Human; ds; bisulphite treatment; CpG; DNA methylation; cancer; tumour; cytostatic; ALDH6; CYP1181; CYP3A3; DPYD; EPHX2; OCLN; TXNRD1; UGT8; MRP; pharmacogenomics; SNP; single nucleotide polymorphism.

Homo sapiens

WO200202806-A2

10-JAN-2002

29-JUN-2001; 2001WO-EP07470

30-JUN-2000; 2000DE-1032529 01-SEP-2000; 2000DE-1043826

(EPIG-) EPIGENOMICS AG

Berlin K; Piepenbrock C, Olek A,

WPI; 2002-154757/20

New nucleic acid, oligonucleotides and peptide nucleic acid-oligomers,

useful for detecting cytosine methylation state of genes associated with pharmacogenomics and for therapy of diseases e.g. cancer Claim 1; SEQ ID No 152; 24pp; English.

The invention relates to a nucleic acid comprising a sequence at least 18 bases in length of a segment of the chemically pretreated DNA of genes associated with pharmacogenomics according to one of the sequences of the genes ALDHE (NM 000693), CYP11A (NM 000491), CYP13A1 (NM 000776 and NM 017460), DPYD (NM 000110), EPHX2 (NM 001979), OCLN (NM 00776 and NM 017460), DPYD (NM 003110), EPHX2 NM 01999), OCLN (NM 019900, NM 019901, NM 019902, NM 019862, NM 019899) NM 019899 and their complementary sequences, or a Sequence (SI) chosen from 87 sequences and their complements. The chemical pretreatment is bisulphite treatment to convert cytosines (but not methyl-cytosines) into uracils. Also included are an oligomer (II) in particular an

3179 chathartrartraccictactcataratricaartracccitcccaartracaacaa 3120 ö each case at least one base sequence having a length of 9 nucleotides which hybridises to or is identical to a chemically precreated DNA of genes associated with pharmacogenomics and their complements, arranged in a array for analysing diseases associated with the methylation state (CpG) and/or detecting SNPs (single nucleotide polymorphisms) of the 87 sequences. The oligomers may also be used as PCR primers. The set of 87 nucleic acids and their complements is useful for diagnosis and therapy of solid tumours and cancer. The present sequence represents one the 87 DNA sequences or its complement.

Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO at Etp.wipo.int/pub/published_pct_sequences. 77 CAGAAGAATATTTAGTTTCACTCAGGTTTTTCAAAGCTACGCTGTCCCCCAAAAAACGAA 136 Gaps ö DB 24; Length 7924; 31; Indels Sequence 7924 BP; 1973 A; 83 C; 1827 G; 4041 T; 0 other; Score 36.4; DE Pred. No. 12; 0; Mismatches 3119 ATAAAACGAAAAACGACCTTATTCA 3094 Query Match 16.2%; Best Local Similarity 64.0%; Matches 55; Conservative (ઠે 임 ò 요

Search completed: June 7, 2003, 20:37:22 Job time : 299 secs

THIS PAGE BLANK (USPTO)

AC117237 Mus muscu AP005406 Oryza sat AC006281 Plasmodiu AC011846 Homo sapi AC05745 Homo sapi AC013420 Homo sapi

Mus muscu

AC104893 Mus muscu

AC104893

19245

3 Rattus no Methanococc Dictyoste

AC117269 L AC094553 F U67577 Met

Homo sapi Homo sapi Homo sapi

AP000848 P AP001320 P AC023384 P

Sequence Homo sapi

SUMMARIES

B

Length

Homo sapi Homo sapi Homo sapi Homo sapi Homo sapi Mus muscu Sequence Plasmodiu

AC073828

Run on:

```
Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 225)
Phippard,D., Vasanthakamur,G., Dotson,S. and Ma,X.J.
Osteoarthritis tissue derived nucleic acids, polypeptides, vectors, and cells
score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AX202128 225 bp
Sequence 58 from Patent WO0153531.
AX202128
AX202128.1 GI:15391919
                                                                                                                                                                                                                                                                                                                                                                                                                   19.6 14635.
19.5 20011(18.8 12955118.8 129955118.6 151476(18.6 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151476(18.5 151
                                                                                                                                Query
Match
                                                                                                                                                            Score
                                                                                                                                                                                                                                                                                                                                                                                                                                              43.8
42.6
42.6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LOCUS
DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 1
AX202128
                                                                                                                                                            Š,
                                                                                                                                                                          7, 2003, 17:27:51 ; Search time 898 Seconds (without alignments) 7291.906 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                            4109280
                        GenCore version 5.1.6
Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      al number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2054640 segs, 14551402878 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                        nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                          IDENTITY NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            htgo_mus:*
_htgo_other:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    tgo hum: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 em_htg_other:
                                                                                                                                                                                                                                                                                     US-09-765-231A-58
225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               em_htg_hum:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             htg_mus:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   em_htg_inv:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        em_ro:*
em_8t8:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     em_pat:•
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        gb_un: *
gb_un: *
gb_vi: *
em_ba: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gob htg: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         em un: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      *: WO .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    em_in:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       or:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ro:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              em_hum:
                                                                                                                                                                                  June
                                                                                                                                                                                                                                                                                     Title:
Perfect score:
Sequence:
                                                                                                                                                                                                                                                                                                                                                                                             Scoring table:
                                                                                                                              OM nucleic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Database
```

3 Mus muscu Dictyoste

AP003183

AC116979

Mus muscu Mus muscu Mus muscu Mus muscu

Homo sapi Rattus no

Human DNA Sequence Sequence

Human DNA

AC013548 N AC073815 N AL513187 H AL607133 H AC123245 F AL158828 H

Sequence Plasmodiu

AX251912 S AX344310 S AX34476 S AX34476 S AX34776 F AX31746 F AC103861 F AC103861 F AC083965 F AC083961 F AC083781 F AC08753 R

Mus musculu

U84903

Oryza sat Homo sapi

Mus muscu

AC004157 AC118028 AP003412

62354 130355

AX323692

AC112232 F AC027460 F AL645950 N AX323692 S AC004157 F AC118028 N AP003412 C

PAT 30-AUG-2001

linear

Pred. No. is the number of results predicted by chance to have a

ALIGNMENTS

```
6856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5679
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                39746
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           12186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           76810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                56823
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Birren, B., Lintcon, L., Nusbaum, C., Lander, E., Allen, N., Anderson, M., Baldwin, J., Barna, N., Beckerly, R., Boguslavkiy, L., Boukhgalter, B., Baldwin, J., Barna, N., Beckerly, R., Boguslavkiy, L., Boukhgalter, B., Brown, A., Castle, A., Colamoelo, M., Collins, S., Collymore, A., Cooke, P., DeArellano, K., Dewar, K., Domino, M., Donelan, L., Doyle, M., Ferreira, P., FitzHugh, W., Forrest, C., Funke, R., Gage, D., Gardyna, S., Grant, C., Hagos, B., Heaford, A., Horton, L., Howland, J.C., Johnson, R., Granc, C., Kann, L., Karatas, A., Klein, J., Lehoczky, J., Lieu, C., Locke, K., Macdonald, P., Marquis, N., McEwan, P., McGurk, A., McKernan, K., McLaughlin, J., Meldrim, J., Morrow, J., Naylor, J., Norman, C.H., O'Connor, T., O'Connell, P., Peterson, K., Pollara, V., Silley, R., Santos, R., Severy, P., Stange-Thomann, N., Stojanovic, N., Subramanian, A., Talamas, J., Tesfaye, S., Tirrell, A., Vassiliev, H., Vo, A., Wheeler, J., Wu, X., Wyman, D., Ye, W. J., Zimmer, A., and Zody, M., Wheeler, J., Wu, X., Direct, Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AC011875 143800 bp DNA linear HTG 12-MAR-2000
Homo sapiens clone RP11-16K5, WORKING DRAFT SEQUENCE, 26 unordered
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATATTGGTTTTACCTTCAGAAGAATATTTAGTTTCACTCAGGTTTTTCAAAGCTACGCTG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATATTGGTTTTACCTTCAGAAGAATATTTAGTTTTCACTCAGGTTTTTCAAAGCTACGCTG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCCCCCAAAAAACGAAACAAAAAAAAAACAACCTTTTTAAGAGTTGATGGCTACTCAT 180
                                                                                                                                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Submitted (15-OCT-1999) Whitehead Institute/MIT Center for Genome Research, 320 Charles Street, Cambridge, MA 02141, USA On Feb 28, 2000 this sequence version replaced gi:6453961.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  wkaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
lammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
(bases 1 to 143800)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ------ Genome Center
Center: Whitehead Institute/ MIT Center for Genome Research
                                                                                                                                                                                                                                                                                                                                                                                                       1 reargeraagricrircagecaraaaarrigaaaraaarrargagecrecargararger
                                                                                                                                                                                                                                                                                                                                                       TGATGGTAAGTTGTTTCAGGCATAAATTTTGAAATAAATTATGAGGCTCCATGATATGCT
                                                                                                                                                                                                                                                                                                   ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           http://ftp.genome.washington.edu/RM/RepeatMasker.html
                                                                                                                                                                                                                                              DB 6; Length 225;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TIGATCIGCCICCICTGCIGAAICAAITAGGAAITITITITIT 225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Contact: sequence_submissions@genome.wi.mit.edu
                                                                                                                                                                                                                                                                                                   0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      repeats were identified using RepeatMasker:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           irren,B., Linton,L., Nusbaum,C. and Lander,B.
omo sapiens, clone RP11-16K5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Center code: WIBR
Web site: http://www-seg.wi.mit.edu
                                                                                                                                                                                                                                              100.0%; Score 225; DB 6 100.0%; Pred. No. 2e-40;
Patent: WO 0153531-A 58 26-JUL-2001;
Pharmacia Corporation (US)
Location/Qualifiers
                                                                                                                                                                                                                                                                                                0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A.F.A. & Green, P. (1996-1997)
                                                                                                                                                                80
                                                                                                         /organism="Homo sapiens"
/db_xref="taxon:9606"
38 c 35 g 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AC011875.3 GI:7107950
HTG; HTGS PHASE1; HTGS DRAFT.
Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (bases 1 to 143800)
                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       domo sapiens
                                                                                                                                                                                                                                           Query Match
Best Local Similarity
Matches 225; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             published
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C011875
                                                                                                                                                                72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OWO
                                                                                                                                                                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 2
AC011875/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                     source
                                                                                                                                                           BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AUTHORS
TITLE
JOURNAL
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE
JOURNAL
  JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
                                                       FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMMENT
```

g

셤

```
NOTE: This is a 'working draft' sequence. It currently consists of 26 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will
                                               Chemistry: Dye-terminator Big Dye; 100% of reads Assembly program: Phrap; version 0.960731 consensus quality: 93387 bases at least Q40 consensus quality: 115701 bases at least Q20 consensus quality: 115701 bases at least Q20 lnsert size: 141000; agarose-fp lnsert size: 141000; agarose-fp Quality coverage: 3.7 in Q20 bases; sum-of-contigs Quality coverage: 3.7 in Q20 bases; sum-of-contigs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        09: gap of 100 bp 92865: contig of 16056 bp in length 65: gap of 100 bp 13313 bp in length 06278: contig of 13313 bp in length
Center clone name: 16_K 5
------ Summary Statistics
Sequencing vector: M13; M77815; 100% of reads
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           106279 106378: gap of 100 bp
106379. 123041: contig of 16663 bp in length
123042 123141: gap of 100 bp
                                                                                                                                                                                                                                                                                                                                                                        100 bp
f 1835 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                           100 bp
E 1189 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100 bp
1892 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .00 bp
f 1998 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100 bp
1956 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   p of 100 bp contig of 2588 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           p of 100 bp
contig of 8932 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           p of 100 bp contig of 9787 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                            100 bp
1325 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               p of 100 bp contig of 2389 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 19: gap of 100 bp 20135: contig of 2116 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                p of 100 bp contig of 3515 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   50: gap of 100 bp 26794: contig of 2944 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      p of 100 bp
contig of 3592 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    p of 100 bp contig of 1911 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     35285: gap of 100 bp
39745: contig of 4460 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       p of 100 bp contig of 4377 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      p of 100 bp contig of 4668 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          p of 100 bp contig of 8700 bp in length
                                                                                                                                                                                                                                                                                                                                                          1029: contig of 1029 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1077 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                p of 100 bp contig of 2329 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              00 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  contig of 1
                                                                                                                                                                                                                                                                                                                                                                                           contig of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .0945: contig of
                                                                                                                                                                                                                                                                                                                                                                                                                            contig of
                                                                                                                                                                                                                                                                                                                                                                                                                                                            contig of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               contig of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             contig of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         con.
; gap of
44222:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            con.
22: gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             13001: cont
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      con.
23750:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                15430: cont
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   394: gap of 29482: cont
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       490: gap of
66822: cont
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5431 15530: gap of 17919: cont
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2: gap of 3174: cont
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          92965: gap of
106278: con'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5: gap of
8847: con
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        74: gap of
35185: con
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          49090: gap of
                                                                                                                                                                                                                                                                                                                                                                             gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gap of
                                                                                                                                                                                                                                                                                                                                                                                                                gap of
                                                                                                                                                                                                                                                                                                                                                                                             2964:
                                                                                                                                                                                                                                                                                                                                                                                                                            4253;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                5678:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               6855:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         57790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0946 11045:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  18019:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     23850:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      29582:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20235:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       26894:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         39845:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           66922:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            76809:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           57890:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        44322:
                                                                                                                                                                                                                                                                                                                                                                           1030 1129:
                                                                                                                                                                                                                                                                                                                                                                                                             2965 3064:
                                                                                                                                                                                                                                                                                                                                                                                                                                            1254 4353:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5778:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               6955:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8947:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        33274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 13101
                                                                                                                                                                                                                                                                                                                                            be preserved.
```

180

```
Hattori,M., Tabli,K., Toyoda,A., Taylor,T.D., Hong-Seog,P., Fujiyama,A., Yada,T., Totoki,Y., Watanabe,H. and Sakaki,Y. Fujiyama,A., Yada,T., Totoki,Y., Watanabe,H. and Sakaki,Y. Fujiyama,A., Yada,T., Toyoda,A., Taylor,T.D., Hong-Seog,P., Expiyama,A., Yada,T., Toyoda,A., Taylor,T.D., Hong-Seog,P., Fujiyama,A., Yada,T., Totoki,Y., Watanabe,H. and Sakaki,Y. Direct Submission

Is Submitted (06-DEC-1999) Masahira Hattori, The Institute of Physical and Chemical Research (RIKEN), Genomic Sciences Center (GSC): 1-7-22 Suehiro-chou, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan (E-mail:hattoriogac.riken.go.jp, URL:http://hgp.gsc.riken.go.jp/, Tel:81-45-503-9111, Fax:81-45-503-9170)

Location/Qualifiers
                                      50914 ATATTGGTTTTACCTTCAGAAGAATATTTAGTTTCACTCAGGTTTTTCAAAGCTACGCTG 50855
                                                                                                           Arvoub48
186962 bp DNA linear PRI 21-JUN-2001
Homo sapiens genomic DNA, chromosome 11q, clone:RP11-775D16,
complete sequence.
                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (sites)
                                                                                      121 TCCCCCAAAAAACGAAACAAAAAAAAACATACTTTTTAAGAGTTGATGGCTACTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     83181 TGATGGTAAGTTGTTTCAGGCATAAAATTTGAAATAAATTATGAGGCTCCATGATAGTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATATTGGTTTTACCTTCAGAAGAATATTTAGTTTTCACTCAGGTTTTTCAAAGCTACGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121 TCCCCCAAAAAACGAAACAAAACAAAAAAACAACTTTTTAAGAGTTGATGGCTACTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 TGATGGTAAGTTGTTTCAGGCATAAAATTTGAAATAAATTATGAGGCTCCATGATATGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 186962;
                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%; Score 225; DB 9;
100.0%; Pred. No. 5.7e-41;
tive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens DNA, clone:RP11-775D16.
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /clone="RP11-775D16"
57359 a 37204 c 36384 g 56015
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /organism="Homo sapiens"
/db_xref="taxon:9606"
/chromosome="11"
                                                                                                                                                                                                                                                                                                                                               AP000848.4 GI:14517575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity 100.0
Matches 225, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
                      61
                                                                                                                                                                                                                                                                          LOCUS
DEFINITION
                                                                                                                                                                                                                                           RESULT 3
AP000848/c
                                                                                                                                                                                                                                                                                                                                                                                               ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE
                                                                                                                                                                                                                                                                                                                              ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AUTHORS
                                                                                                                                                                                                                                                                                                                                              VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMMENT
FEATURES
                                                     요
                                                                                      ò
                                                                                                                    유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     윤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 143800;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2504 others
2 143800: contig of 20659 bp in length.
Location/Qualifiers
                                                                                                 /clone lib="RPCI-11 Human Male BAC"
1. .1029
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity .100.0%; Pred. No. 5.9e-41;
Matches 225; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          misc_feature 123142. 143800
/note="assembly_fragment"
/note="assembly_fragment"
ORIGIN 43074 a 27702 c 27628 g 42892 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                26895. .29482
/note="a88embly_fragment"
29583. .33174
/note="a88embly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   clone_end.8P6 _______side.right"
35286. .39745
/note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                        948. .10945
note="assembly_fragment"
                                                                                                                                                      1130. .2964
/note="assembly_fragment"
                                                                                                                                                                                      1065. 4253
'note="agsembly_fragment"
                                                                                                                                                                                                                                                       779. .6855
note="assembly_fragment"
                                                                                                                                                                                                                                                                                          :956. .8847
'note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                             note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                               8020. .20135
note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1851. .26794
note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      noce="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            6810. .92865
note="assembly_fragment"
                                                                                                                                        note="assembly_fragment"
                                                                                                                                                                                                                       354. .5678
note≕"aggembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                          ote="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                               ote="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ote="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9846. .44222
note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           lote="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3275. .35185
note="aasembly_fragment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              )2966. .106278
/note="assembly_fragment
                                                 /organism="Homo sapiens"
/db_xref="taxon:9606"
/clone="RP11-16K5"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 vector_side:right"
106379. .123041
                                                                                                                                                                                                                                                                                                                                                                                               3102. .15430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1323. .48990
                                                                                                                                                                                                                                                                                                                                                              .046. .13001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   lone_end:T7
   123142
                                                                                                                      misc_feature
                                                                                                                                                                                       misc_feature
                                                                                                                                                                                                                         misc_feature
                                                                                                                                                                                                                                                         misc_feature
                                                                                                                                                                                                                                                                                          misc_feature
                                                                                                                                                                                                                                                                                                                          misc_feature
                                                                                                                                                                                                                                                                                                                                                              misc_feature
                                                                                                                                                                                                                                                                                                                                                                                               misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     misc_feature
                                                                                                                                                      misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                               misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  misc_feature
                   FEATURES
```

RESULT

1 TGATGGTAAGTTGTTTCAGGCATAAATTTGAAATAAATTATGAGGCTCCATGATATGCT

ઠે

181

ò

ö 9

Gaps

ö

0; Indels

83122

.. 0

120

```
151235 153751 contig of 2517 bp in length
158652 155504 contig of 2653 bp in length
158605 155604 contig of 2653 bp in length
158604 161669 contig of 2979 bp in length
155604 164135 contig of 2979 bp in length
164236 16816 contig of 1986 bp in length
165955 167495 contig of 1541 bp in length
167596 168771 contig of 1176 bp in length
170423 177202 contig of 1176 bp in length
170423 17220 contig of 1160 bp in length
170423 17220 contig of 1160 bp in length
170423 17220 contig of 1160 bp in length
170423 17220 contig of 1160 bp in length
170423 17220 contig of 1160 bp in length
170423 17220 contig of 1160 bp in length
170423 17220 contig of 1160 bp in length
170423 17220 contig of 1160 bp in length
170423 17220 contig of 1160 bp in length
170423 17220 contig of 1160 bp in length
170625 bp in length
170625 contig of 1160 bp in length
170625 bp in length
170626 bp in length
170626 bp in length
170626 bp in length
170626 bp in length
170626 bp in length
170626 bp in length
170626 bp in length
170626 bp in length
170626 bp in length
170626 bp in length
170626 bp in length
170626 bp in length
170626 bp in length
170626 bp in length
170626 bp in length
170626 bp in length
170626 bp in length
170626 bp in length
170626 bp in length
170626 bp in length
170626 bp in length
170626 bp in length
170626 bp in length
170626 bp in length
170626 bp in length
170626 bp in length
170626 bp in length
170626 bp in length
170626 bp in length
170626 bp in length
170626 bp in length
170626 bp in length
170626 bp in length
170626 bp in length
170626 bp in length
170626 bp in length
170626 bp in length
170626 bp in length
170626 bp in length
170626 bp in length
170626 bp in length
170626 bp in length
170626 bp in length
170626 bp in length
170626 bp in length
170626 bp in length
170626 bp in length
170626 bp in length
170626 bp in length
170626 bp in length
170626 bp in length
170626 bp in length
170626 bp in length
170626 bp in length
170626 bp in length
170626 bp in length
170626 bp in length
170626 bp in length
170626 bp in length
1706
                                                                                                                                                                                                                                                                                                                                                                    arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              88990 89891 gap of 100 bp 89961 99362: contig of 10273 bp in length 99563 99462: gap of 100 bp 99563 99462: gap of 100 bp 99563 99462: gap of 100 bp 99563 99462: gap of 100 bp 10334 103533: gap of 100 bp 10354 103534 103564: contig of 5531 bp in length 109565 109164: contig of 6531 bp in length 109165 113855: contig of 4691 bp in length 113956 113955: gap of 100 bp 113956 113956: contig of 5421 bp in length 119240: gap of 100 bp 124662 124761: gap of 100 bp 124622: contig of 2061 bp in length 12623 126922: contig of 2061 bp in length 131318 113477: gap of 100 bp 131318 113437: gap of 100 bp 131318 113437: gap of 100 bp 131318 113437: gap of 100 bp 131318 113437: gap of 100 bp 131318 113437: gap of 100 bp 131318 113437: gap of 100 bp 131318 131318: contig of 2956 bp in length 131335 133234: gap of 100 bp 1313138 133234: gap of 100 bp 1313138 133234: gap of 100 bp 1313138 133234: gap of 100 bp 1313138 133234: gap of 100 bp 1313138 133234: gap of 100 bp 1313138 133234: gap of 100 bp 1313138 133234: gap of 100 bp 1313138 133234: gap of 100 bp 1313138 133234: gap of 100 bp 1313138 133234: gap of 100 bp 1313138 133234: gap of 100 bp 131335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        15833 3410]: contig of 18269 bp in length
34102 34201: gap of 100 bp
34202 47479: contig of 13278 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        57856: gap of 100 bp
69426: contig of 11570 bp in length
69526: gap of 100 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               15733 15832: gap of 100 bp 15833 34101: contig of 18269 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              47579: gap of 100 bp 57756: contig of 10177 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          126: gap of 100 bp 101851
80185: contig of 10659 bp in length
885: gap of 100 bp
889889: contig of 8704 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           15732: contig of 15732 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           161769; gap of 100 bp 164135; contig of 2366 bp in length 164235; gap of 100 bp 165854; contig of 1619 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           159584 159683: gap of 100 bp
159684 161669: contig of 1986 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  142124 142223: gap of 100 bp 14222 144719: contig of 2496 bp in 14472 144819: gap of 100 bp 144820 149030: contig of 4211 bp in 149031 149130: gap of 100 bp 149131: gap of 2014 bp in 151135 151234: contig of 2014 bp in 151135 151234: contig of 2517 bp in 151235 153751: contig of 2517 bp in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1851: gap of 100 bp
156504: contig of 2653 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            contig of 2979 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       153851: gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 156505 156604: gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    161770 164135: cont
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          59583:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         80285:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   69527
80186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              47480
47580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             57757
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   57857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               69427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  80286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    53752
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     164236
                                                                                                                                                                                                                                                                                                                                                                                                                Hattori, M., Ishii, K., Toyoda, A., Taylor, T.D., Hong-Seog, P., Fujiyama, A., Yada, T., Totoki, Y., Watanabe, H. and Sakaki, Y. Direct Submission

Birect Submission

Submitted (01-MAR-2000) Masahira Hattori, The Institute of Physical and Chemical Research (RIKEN), Genomic Sciences Center (GSC); Kitasato Univ., 1-15-1 Kitasato, Sagamihara, Kanagawa 228-8555, Japan (E-mail:hattoriò@gsc.riken.go.jp,

Pax:81-42-778-9924)
                           AP001320 172830 bp DNA linear HTG 30-MAY-2000 Homo sapiens chromosome 11 clone RP11-79904 map 11q14, WORKING DRAFT SEQUENCE, 32 unordered pieces.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NOTE: This is a 'working draft' sequence. It currently consists of 32 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be
                                                                                                                                                                                                                             Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                       1 (Dases 1 to 172830)
Hattori,M., Ishii,K., Toyoda,A., Taylor,T.D., Hong-Seog,P., Fujiyama,A., Yada,T., Totoki,Y., Watanabe,H. and Sakaki,Y. Homo sapiens 172,830 genomic DNA of 11q14
Published Only in DataBase (2000)
2 (bases 1 to 172830)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       On May 30, 2000 this sequence version replaced gi:7209763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Chemistry: Dye-terminator ET-amersham; 100% of reads Assembly program: Phrap; version 0.990329 Consensus quality: 148336 bases at least Q40 Consensus quality: 159404 bases at least Q30 Consensus quality: 165488 bases at least Q20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Insert size: 169730; sum-of-contigs
Quality coverage: 4.17x in Q20 bases; sum-of-contigs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ength
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ength
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ength
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ength
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ength
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       engtr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ength
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ength
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ------ Genome Center
Center: RIKEN Genomic Sciences Center(GSC)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         i i
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       44444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     55555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            12 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   15732
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   13278
10177
11570
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10659
8704
10273
3971
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4691
5185
5421
2061
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4415
3641
2956
3889
2496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5531
                                                                                                                               AP001320.2 GI:8117247
HTG; HTGS_PHASE1; HTGS_DRAFT.
Homo sapiens DNA, clone:RP11-79904
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             contig of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         contig
contig
contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  contig
contig
contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   conti
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Center code: RIKEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      15732
34101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         57756
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      47479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              80185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    88989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   113855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       119140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     135078
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     142123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           144719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     151134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     69426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       109064
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            131337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            138134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               149030
                                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               15833
34202
47580
57857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             144820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           69527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .09165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        31438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     138235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    80286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       113956
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            35179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             19241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            26923
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                preserved
                                                                                                        AP001320
                                                                                                                                 VERSION
KEYWORDS
SOURCE
ORGANISM
                                                         DEFINITION
                                                                                                                                                                                                                                                                                                                                                                      JOURNAL
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE
JOURNAL
                                                                                                        ACCESSION
                                                                                                                                                                                                                                                                            REFERENCE
                                                                                                                                                                                                                                                                                                     AUTHORS
            AP001320
```

COMMENT

TITLE

```
Dipublished

Ompublished

Stren, B., Linton, L., Nusbaum, C., Lander, E., Abraham, H., Allen, N., Anderson, S., Baldwin, J., Barna, N., Beda, F., Boguslavkiy, L., Buckpgalter, B., Brown, A., Burkett, G., Campopiano, A., Castle, A., Choepel, Y., Colangelo, M., Collins, S., Collymore, A., Cooke, P., DeArellano, K., Dewar, K., Dodge, S., Domino, M., Doyle, M., Forrest, C., Gage, D., Gandgan, J., Grant, G., Hagos, B., Heaford, A., Horton, L., Grand-Pierre, N., Grant, G., Hagos, B., Heaford, A., Horton, L., Kartas, A., Klein, J., Landers, T., Johnson, R., Jones, C., Kann, L., Levine, R., Michin, J., Landers, T., Johnson, R., Jones, C., Kann, L., Levine, R., McEurk, A., McGurk, A., McKernan, K., McPheeters, R., Meldrim, J., Mardonald, P., Marquis, N., McGurk, A., McKernan, K., McPheeters, R., Meldrim, J., Norman, C.H., O'Connor, T., O'Donnell, P., O'Neal, D., Olivar, T.M., Peterson, K., Pierre, N., Pisani, C., Pollara, V., Raymond, C., Peterson, K., Pierre, N., Pisani, C., Pollara, V., Raymond, C., Severy, P., Spencer, B., Stange-Thomann, N., Stojanovic, N., Severy, P., Spencer, B., Stange-Thomann, N., Stojanovic, N., Trigilio, J., Vassiliev, H., Viel, R., Vo, A., Wilson, B., Wu, X., Wyman, D., Ye, W. J., Young, G., Zainoun, J., Zimmer, A. and Zody, M.
Direct, Submission
                                                                                                                                         ACU23384 13-JUL-2000 BA linear HTG 13-JUL-2000 HOMO Sapiens chromosome 11 clone RP11-589112 map 11, LOW-PASS SEQUENCE SAMPLING.
                                                                                                                                                                                                                                                                                                                                                                   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 75002)
Birren, B., Linton, L., Nusbaum, C. and Lander, E.
Homo sapiens chromosome 11, clone RP11-589112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    * NOTE: This record contains 88 individual

* sequencing reads that have not been assembled into

* contigs. Runs of N are used to separate the reads

* and the order in which they appear is completely

* arbitrary. Low-pass sequence sampling is useful for

* identifying clones that may be gene-rich and allows

* overlap relationships among clones to be deduced.

* However, it should not be assumed that this clone

* will be sequenced to completion. In the event that

* the record is updated, the accession number will
     29089 TITGATITGCCTCCTGTGCTGGATCACATATGGGATTTTTCTTTTT 29134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Contact: sequence_submissions@genome.wi.mit.edu
------------- Project Information
Center project name: 15114
Center clone name: 589_I_12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 724: contig of 724 bp in length
725 824: gap of 100 bp.
825 1573: contig of 749 bp in length
1574 1673: gap of 100 bp
                                                                                                                                                                                                                                                                        AC023384.2 GI:9144035
HTG; HTGS PHASE0.
Homo sapiens.
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          be preserved.
                                                                                                                                                                                           DEFINITION
                                                                                                                                                                                                                                                                                                                                                     ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE
AUTHORS
TITLE
JOURNAL
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE
JOURNAL
                                                                                                                                                                                                                                               ACCESSION
                                                                                                                 RESULT 5
AC023384
                                                                                                                                                                                                                                                                        VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     28909 TGATGGTAAGTTGTTTCAGGCATAAAATTTGAAATTATGAGGCTCCATGATATGCT 28968
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   29029 GTCCCCCCAAATACGGAACCAAAAAACCACCCTTTTAAGAGTTGATGGTAATCA 29088
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61 ATATIGGTTTTACCTICAGAAGAATATTTAGTTTCACTCAGGTTTTTCAAAGCT-ACGCT 119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTCCCCCAAAAAACGAAACAAAAAAAAAAAACAACCTTTTTAAGAGTTGATGGCTACTCA 179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   note="assembly_fragment clone_end:T7 vector_side:right"
126923. .131337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               note="assembly_fragment clone_end:SP6 vector_side:left"
03534, 109064
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 TGATGGTAAGTTGTTTCAGGCATAAAATTTGAAATAAATTATGAGGCTCCATGATATGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 78.0%; Score 175.6; DB 2; Length 172830; Best Local Similarity 88.9%; Pred. No. 6e-30; Matches 201; Conservative 0; Mismatches 24; Indels 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           180 TITGAICTGCCTCCTCTGCTGAATCAATTAGGAATTTTTTTTT 225
165855 165954: gap of 100 bp
16595 167495: contig of 1541 bp in length
167496 167595: gap of 100 bp
167596 168771: contig of 1176 bp in length
168772 168871: gap of 100 bp
168872 170322: contig of 116 bp in length
170323 170422: gap of 100 bp
170423 171562: contig of 1140 bp in length
17153 171662: gap of 100 bp
17153 171662: gap of 100 bp
17163 172830: contig of 1168 bp in length
17153 172830: contig of 1168 bp in length
17153 17762: gap of 100 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /noce="assembly_fragment"
113956. .119140_/note="assembly_fragment"
/note="assembly_fragment"
119241. .124661
/note="assembly_fragment"
124762. .126822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     15833. .34101
/note="assembly_fragment"
34202. .47479
/note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note="assembly_fragment"
109165. .113855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /note="assembly_fragment"
142224. 144719
/note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                      .15732
note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  57857. .69426
/note="aggembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         69527. .80185
/note="aggembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    'note="assembly_fragment"
(31438, .135078
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /note="assembly_fragment"
138235. .142123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            note="aggembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      'note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              'note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                       /organism="Homo sapiens"
|db_xref="taxon:9606"
|chromosome="11"
                                                                                                                                                                                                                                                                                                                                                                                                                                /clone="RP11-79904"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99463. .103433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   30286. .88989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          89090. .99362
                                                                                                                                                                                                                                                                                                                                                                                                                                                              misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  120
                                                                                                                                                                                                                                                                      FEATURES
```

셤

g

ઠે

g

ઠે

```
100 bp

100 bp

101 bp

10218: gap of 106 bp in length

10978: contig of 764 bp in length

10978: contig of 760 bp in length

1079 11078: gap of 100 bp

11 1950: gap of 100 bp

11 1950: gap of 100 bp

11 1950: gap of 100 bp

11 1950: gap of 100 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      23926: contig of 754 bp in length
23926: gap of 100 bp
1774: gap of 100 bp 100 bp
25507: contig of 748 bp in length
507: gap of 100 bp
26347: contig of 740 bp
26347: contig of 740 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                7866: 940 Off. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp. 100 bp.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   contig of 740 bp in length
ap of 100 bp
contig of 755 bp in length
ap of 100 bp
contig of 750 bp in length
                                                                                                                                            100 bp
of 743 bp in length
100 bp in length
of 738 bp in length
100 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100 bp
f 783 bp in length
100 bp
f 773 bp in length
100 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               92: gap of 100 bp
15244: contig of 752 bp in length
44: gap of 100 bp
16095: contig of 751 bp in length
                                                                                                 10 bp
743 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100 bp
732 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            27: gap of 100 bp
17766: contig of 739 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  32373: contig of 776 bp in length
73: gap of 100 bp
33222: contig of 749 bp in length
                                                                                                                                                                                                                                                                 751 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100 bp
739 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      109: gap of 100 bp 29741: contig of 732 bp
                                                                                                                                                                                                                                                                                                               754 bp
                                                                                                                                                                                                                                                                                       100 bp
                                                                                                                                                                                                                                                                                                                                100 bp
                                                     007
                                                                                                   100
                                                                                                                                                                                                                                                                                                                              9 8508: gap of 100
9254: contig of 7
5 9354: gap of 100
5 10118: contig of 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 53: gap of 14392: contig of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                contig of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          contig of
                                                                                                                                                                     contig of
                                                                                                                                                                                                                                                                 contig of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      16927: contig of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        contig of
                                                                                                                         contig of
                                                                                                                                                                                                                   contig of
                                                                                                                                                                                                                                                                                                             contig of
                               contig of
                                                                           contig of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      16095: Com
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     gap of
3328: r
                                                   8: gap 4179: c
                                                                                                 9: gap (
                                                                                                                                          5122: gap (5865: 0
                                                                                                                                                                                        5965: gap 6
                                                                                                                                                                                                                                         6803: gap
7554:
                                                                                                                                                                                                                                                                                       7654: gap
8408:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        31497:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    23926:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               24774:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              16195:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        17866:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          23072:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  29841:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        13653:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    14492:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               15344:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20444:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              21305:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            22189:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   30724:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          32473:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   18715:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          28152:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      29009:
       2555:
                                                   3428:
                                                                                                 4279:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            27302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      19589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  25607
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            17027
                                                                        3429
41180
5023
5123
5866
5966
                                                                                                                                                                                                                                                                                     7555
7655
8409
8509
```

35991 AAAAAAACAACCTTTTTAAGAGTTGATGGCTACTCTTTGATCTGCCTCCTCTGCTGAAT 36050 84 ATAITITAGITITCACTCAGGITITITCAAAGCTACGCTGTCCCCCAAAAAACGAAACAAAAC 35932 ATAITIAGITICACICAGGITITICAAAGCIACGCIGICCCCC-AAAGACGAACAAAC 144 AAAAAACAACCTITITAAGAGTIGATGGCTACTCATTIGATGTGCCTCCTCTGCTGAAT 1; Gaps DB 2; Length 75002; 13591: gap or 2636: contig of 745 c. 26636: contig of 745 c. 36636: contig of 745 c. 3736: gap of 100 bp 37568: gap of 100 bp 169 38328: contig of 760 bp in length 169 39291: gap of 100 bp 19192 39291: gap of 100 bp 100 bp 19192 39291: gap of 100 bp 100 50247: contig ot ...
50247: contig ot ...
1347: gap of 100 bp
51915: contig of 720 bp in length
51915: contig of 748 bp in length
51915: gap of 100 bp
51915: gap of 100 bp 1; Indels 100 bp 1737 bp in length 1753 bp in length 100 bp 1755 bp in length 100 bp 1755 bp in length 100 bp 1755 bp in length 100 bp 1755 bp in length 1755 bp in length 1755 bp in length 1765 bp in length 1765 bp in length 1766 bp in length 1766 bp in length 1766 bp in length 1766 bp in length 1766 bp in length 1767 bp in length 84: gap of 100 bp 54427: contig of 743 bp in length 55292: contig of 765 bp in length 92: gap of 100 bp 100 bp 721 bp in length 85: gap of 100 bp 57829: contig of 744 bp in length 129: gap of 100 bp 57929: gap of 100 bp 58677: contig of 748 bp in length 100 bp 739 bp in length in length in length in length in length pp in Score 128.4; DB 2, Pred. No. 2.3e-19; 0; Mismatches 1; 100 bp 759 bp 100 bp 41729: contig of 734 bp p of 100 bp contig of 760 bp 3 42677: gap of 10 43414: contig of 7 5 43514: gap of 10 44267: contig of 7 45223: gap of 1 45973: contig of 53684: gap of 1 54427: contig of 41829: gap of 42577: contig of 47781: gap of 48544: contig of 49410: contig of contig of contig of 35791: contig of contig of contig of 47681: contig of contig of contig of 50247: 'com' con : gap of 34932: cr 32: 46073: gap of 46816: cont 50347: gap of 51067: con 55392: gap of 56164: cont gap of 52015: gap of 56264: gap of 35032: gap of 44367: gap of 48644: gap of 57.1**%**; 98.6**%**; 53584: 45123: 56985 Query Match 57.1 Best Local Similarity 98.6 Matches 140; Conservative 46916: 49510: 52845: 54527: 51167: 34172: g ò

35990 143

셤

ઠે

```
Rattus norvegicus clone CH230-4P5, 56 unordered pieces.
                                                                                           AC094553.6 GI:21716350
HTG; HTGS_PHASE1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (bases 1 to 192454)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Unpublished
                                                                                                                                                 Norway rat.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Worley, K.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Worley, K.C.
         LOCUS
DEFINITION
                                                                                                                                                                   ORGANISM
                                                                        ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE
JOURNAL
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                          REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Direct Submission
Submitted (09-ARR-2002) Genome Analysis, Institute of Molecular
Submitted (09-ARR-2002) Genome Analysis, Institute of Molecular
Biotechnology, Beutenberstr. 11, John 07745, Germany
Establications from GeneID may contain errors. Further Information
is available from IMB Jena, Department of Genome Analysis
(http://genome.imb-jena.de/dictyostellum/)
and the Univerity Colonge, Institute for Biochemistry I
(http://www.uni-koeln.de/dictyostellum/project.shtml
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  21100 ТGTTTTAAACCACAATGTTATTATTTTTTTTTAATTTTTTAATTTTTTAAAAATTT 21041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           21040 ATTTATATAGAAATTTTTTATAAAAGTCTCTCAAATCACCAAGTTAGAAATTAACAAA 20981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AC117269 30726 bp DNA linear HTG 09-APR-2002 Dictyostellum discoideum chromosome 2 map 679874-710598 strain AX4, *** SEQUENCING IN PROGRESS ***, in ordered pieces.
                                                                                                                                                                                                                                                                                             Dictyostellum discoideum.
Dictyostellum discoideum.
Eukaryota; Mycetozoa; Dictyostellida; Dictyostellum.
1 (bases I to 30726)
Gloeckner, G., Eichinger, L., Szafranski, K., Pachebat, J., Dear, P.,
Lehmann, R., Baumgart, C., Parra, G., April, J.F., Guigo, R., Kumpf, K.
Tunggal, B., Cox, E., Quail, M.A., Platzer, M., Rosenthal, A. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              90 AGTITCACTCAGGTITITCAAAGCTACGCTGTCCCCCAAAAAACGAAACAAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       150 ACAACCTTTTTAAGAGTTGATGGCTACTCATTTGATCTGCCTCCTCTGCTGAATCAATTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        30 TGAAATAAATTATGAGGCTCCATGATATGCTATATTGGTTTTACCTTCAGAAGAATATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Agency : Deutsche Forschungsgemeinschaft (DFG).
• NOTE: This is a 'working draft' sequence.
• This sequence will be replaced
• by the finished sequence as soon as it is available and
• the accession number will be preserved.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               21.0%; Score 47.2; DB 2; Length 30726; 52.6%; Pred. No. 0.35; tive 0; Mismatches 93; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence and Analysis of Chromosome 2 of Dictyostelium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The Dictyostelium Genome Sequencing Consortium ( ) (bases 1 to 30726)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /organism="Dictyostelium discoideum"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /map="679874-710598"
2998 c 3058 g 12380 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /db_xref="taxon:44689"
/chromosome="2"
                                                 36051 CAATTAGGAATTTTTTTTTT 36072
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20920 ATAATTTTTTTTT 20905
                                                                                                                                                                                                                                                        AC117269.1 GI:20087116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /strain="AX4"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   210 GGAATTTTTTTTTT 225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches 103; Conservative
                                                                                                                                                                                                                                                                               HTG; HTGS_PHASE2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Baumgart
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ASE COUNT
                                                                                                                  RESULT 6
AC117269/C
LOCUS
DEFINITION
                                                                                                                                                                                                                              ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ITLE
JOURNAL
REMARK
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMMENT
```

셤 ઠે 음 8 ઠ

ò

```
DNA linear HTG 10-JUL-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Submitted (10-JUL-2002) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA On Jul 9, 2002 this sequence version replaced gi:18874113.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Direct Submission
Submitted (15-SEP-2001) Human Genome Sequencing Center, Department
of Molecular and Human Genetics, Baylor College of Medicine, One
Baylor Plaza, Houston, TX 77030, USA
(bases 1 to 192454)
                                                                      Rattus norvegicus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Web site: http://www.hgsc.bcm.tmc.edu/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Project Information
```

```
RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                         NOTE: Estimated insert size may differ from sequence length (see http://www.hgsc.bcm.tmc.edu/docs/Genbank_draft_data.html).
NOTE: This is a "working draft' sequence. It currently consists of 56 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.
                       Sequencing vector: Plasmid;
Sequencing vector: Plasmid;
Chemisery: Dye-terminator Big Dye: 100% of reads
Assembly program: Phrap; version 0.990329
Consensus quality: 130108 bases at least Q40
Consensus quality: 144061 bases at least Q30
Consensus quality: 149644 bases at least Q20
                                                                                                                                                                                                                                                                  gap of unknown length
contig of 1104 bp in length
gap of unknown length
contig of 1203 bp in length
gap of unknown length
gap of 1056 bp in length
gap of unknown length
contig of 1058 bp in length
contig of 1058 bp in length
contig of 1699 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        length
bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 known length
1036 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  bp in length
length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       cnown length
2480 bp in length
known length
                                                                                                                                                                                                                                                                                                                                                                                            ength
op in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      bp in length
length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             contig of 1048 bp in length
gap of unknown length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      of 1340 bp in length
unknown length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          contig of 1455 bp in length
gap of unknown length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         length
bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              bp in length
length
                                                                                                                                                                                                                                                       1247 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                    bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                          bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      length
bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2505 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1709 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       in length
                                                                                                                                                                                                                                                                                                                                                                                                                       length
                                                                                                                                                                                                                                                                                                                                                                                                                                                ength
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ength.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ength
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ength.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ength.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ength
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ength.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   of 1008 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1224 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1242 bp
                                                                                                                                                                                                                                                                                                                                                                                              unknown
of 1606
                                                                                                                                                                                                                                                                                                                                                                                                                                                      contig of 1041
gap of unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           unknown
of 2249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                contig of 1369
gap of unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                    1520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       of 1216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1774
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 unknown
                                                                                                                                                                                                                                                                                                                                                                                                                       unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             unknown
Center project name: GAWO
Center clone name: CH230-4P5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        contig of
gap of unkr
contig of
gap of unkr
contig of
                                                                                                                                                                                                                                                       contig of
gap of unk
contig of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             contig of
gap of unk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             contig of
gap of unk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               contig of
gap of unk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        contig of
gap of unk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   contig of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  contig c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              contig c
                                                                                                                                                                                                                                                                                                                                                                                                           contig
gap of
                                                                                                                                                                                                                                                                                                                                                                                  contig
gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                    contig
gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      contig
gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        contig
                                                                                                                                                                                                                                                                                2451:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          27581:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  33885:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              14578:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                17042:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        24557:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        43033:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  13542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           14678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        12335
12435
13443
13543
14579
14679
15895
17043
17143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        23123
24458
24558
24558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          26027
27482
28601
28701
311306
33786
33886
33886
33886
33886
35595
35695
36891
40685
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    21681
21781
23023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8467
```

113580 113461 AAAATTGCCTTCAATTTCTTTGTATAACAAAGATTGAGGCTTTTATTTTTCCCATAGAGA 113520 ö 143 84 ATATITAGITICACTCAGGITITICAAAGCTACGCTGTCCCCCAAAAAACGAAACAAAAC 24 AAAATTTGAAATAAAATTATGAGGCTCCATGATATGCTATATTGGTTTTACCTTCAGAAGA Gaps 144 AAAAAAACAACCTTTTTAAGAGTTGATGGCTACTCATTTGATCTGCCTCCT 194 Score 46.2; DB 2; Length 192454; Pred. No. 0.42; 0; Mismatches 78; Indels 0; Jp ... length 'n length Jength length 'n length P -length in length of 11271 bp in length in length length bp in length length bp in length length bp in length known length 7766 bp in length in length length bp in length bp in length in length bp in length bp in length bp in length bp in length bp in length bp in length length ength ength length length length ength ength length ength ength ength unknown length length ength unknown length of 10440 bp 6864 of 5996 of 3546 4831 unknown 4117 3364 unknown 2491 5671 unknown unknown 4641 unknown 4959 unknown unknown of 3358 3286 3040 3943 3740 unknown 2749 4147 3994 unknown unknown unknown unknown 2103 unknown unknown unknown unknown contig of gap of unk contig of gap of unk contig of ö oŧ ij contig co gap of t contig gap of t contig gap of t contig gap of u gap of contig gap of contig gap of gap of contig contig gap of contig contig Query Match
Best Local Similarity 54.4%;
Matches 93; Conservative 45139: 45239: 47313: 47413: 50150: 52453: 55811: 59197: 59297: 62437: 66380: 66480: 70220: 70320: 73866: 73966: 76715: 76815: 81032: 84396: 88643: 92837: 95328: 95428: 01199: 27920: 34016: .34116: 70321 73867 73967 162643 47314 47414 50151 50251 52354 52454 55812 55912 59198 62338 62438 66381 66481 70221 76716 76816 80933 81033 84397 88644 88744 92838 95329 101100 111157 111257 115898 115998 84497 34017 95429 106031 92738 121057 43506 06133

us-09-765-231a-58.rge

```
/codon_start=1
/transl_table=11
/product="M. jannaschii predicted coding region MJ1373"
/product="M. jannaschii predicted coding region MJ1373"
/protein_id="AB99388.1"
/db_xref="G1:1592018"
/db_xref="G1:1592018"
/translation="MKKHIILEPETALLCSITLCGCISFEKTQIGNYNIKANSCINS
/VSKNQTIQNVSDKIYUNNYNILLNTLNYEIIAYGARGEKNRGYYYYYKDNKTIVINL
EEMPPAGYKIKIINITETANKITVYYKVIPPKEFAAMVVTYPYIKLSVNGTYNVECKE
                                                                                                                                                                                                                                                                                                                                                                      /product="methlytransferase"
/protein id="AAB9379 1"
/db_xref="id="292016"
/db_xref="id="922016"
/translation="MIMYAIGIGDNKEEVLKAYEKLKEEGIEVELIDNPKLLVDKLL
DGEIDGAVRGSLSSRVILYLRERIGKFYRASILKNPFTNGIFLLSFVGIDDISEDKN
ERK KDKIRITEFASNPLKNYNIKAKVAVLSGGRLGDLGRNKVVDETIYEAEEIVEHFK
GNVDIIHNGILIEEVLKDGYNIIAAVGGITGNLIFRCLGLICKIPGYGAVILSDKNVN
FIDTSRNANWERYYNAIKFLIGGDFG"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /translation="MCILGKIKNKLKSIGKRVIIDFYRFLDNSGVLKIYEKILEEAID
KDNIPKHVAIIMDGNRRAAEIYGKDRYYGHYLGAEKVREVLRWARDLGINVVTLYAFS
FENERRAREVDKLMELFEKKFYEIADDEEIHRYEVRYRGYTGAILAKYA
EERTKWYKKFVNIATAGGOGDEIDAWKKIAEKVRKGEIREDEIDKELIDKGLYTAN
LPFPNPDLIIRTSGEERISNFLIWGSSYSELYFCDIYWPLFRRVDFLRAVRDYQRQR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /tränslation="MRVEIIFLGCGGGRWATITQKKATGGFRIHTNELRMHVDPGPGA
IVRLNELKISPWRTNALFISHCHPDHYTDGEIIVEAITQGMTKKRGVFLGSLSVVEGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GEYEYVVSKYHQSKLEEVRVLYPGDSAELYDTTIKATHŤKHGDPFGIGFRLSTIYGDI
GYSTOPTEIPIQLIEDPDQVRILIANIYRKKNERIKGHLCSNDAIDLINSMNKKPELLI
MNHMGVKMTNRQIEAEYISQNTGIEVIPARLGIKVELLNGKYKYQLIK"
complement (4473. .5720)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /note="similar to GB:AE000666 percent identity: 42.73; identified by sequence similarity; putative"
                                                                                                                                                                                                           /note="similar to GP:2437836 percent identity: 39.09; identified by sequence similarity; putative" /codon start=1.
/rensi_teal=1.
                            ANPIDIPKRIKEFVEAKIFVLYGESGAIGGALIAEDILKGKRDILGIEVEFK"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      'note="hypothetical protein; identified by GeneMark;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /note="similar to GB:D26185 SP:P37555 PID:467446
GB:AL009126 percent identity: 23.61; identified by
sequence similarity; putative"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          'note="similar to GB:L42023 SP:P44938 PID:1006041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PID:1221025 PID:1205167 percent identity: 47.86; identified by sequence similarity; putative" /codon start=1 /transI_table=11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       producE="conserved hypothetical protein"
protein_id="AAB99381.1"
/db_xref="GI:1592019"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     trans1 table=11
producE="conserved hypothetical protein"
protein id="AAB9380.1"
db_xref="GI:1592017"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          complement (4473. .5720)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          table=11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /gene="MJ1372"
2285. .3127
/gene="MJ1372"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3124. .3612
/gene="MJ1373"
3124. .3612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3680. 4480
/gene="MJ1374"
3680. 4480
/gene="MJ1374"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /gene="MJ1375"
                                                                                                     'gene="MJ1371"
                                                                                                                                                                           gene="MJ1371"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /gene="MJ1373"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /codon_start=1
/transl_table=;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /gene="MJ1375"
                                                                     gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    gene
                                                                                                                                          CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SCO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SCO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S. (bases 1 to 9911)
S. Bult,C.J., White,O., Olsen,G.J., Zhou,L., Fleischmann,R.D., Sutton,G.G., Blake,J.A., FitzGerald,L.M., Clayton,R.A., Gocayne,J.D., Kerlavage,A.R., Dougherty,B.A., Tomb,J.-F., Adams,M.D., Reitch,C.I., Overbeek,R., Kirkness,B.F., Weinstock,K.G., Merrick,J.M., Glodek,A., Scott,J.D., Geoghagen,N.S., Weidman,J.F., Fuhrmann,J.L., Nguyen,D.T., Utterback,T., Kelley,J.M., Peterson,J.D., Sadow,P.W., Hanna,M.C., Cotton,M.D., Hurst,M.A., Roberts,K.M., Kaine,B.B., Borodovsky,M., Klenk,H.P., Fraser,C.M., Smith,H.O., Woese,C.R. and Venter,J.C.

Direct Submission

Nobited (27-AVG-1996) The Institute for Genomic Research, 9712

Medical Center Dr, Rockville, MD 20850, USA

Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                              E 1 (Dases 1 to 9971)
Sutron(G.G., Blake,J.A., FlizGerald,L.M., Clayton,R.A.,
Gocayne,J.D., Kerlavage,A.R., Dougherty,B.A., Tomb,J., Adams,M.D.,
Gocayne,J.D., Kerlavage,A.R., Dougherty,B.A., Tomb,J., Adams,M.D.,
Reich,C.I., Overbeek,R., Kirkness,E.F., Weinstock,K.G.,
Merrick,J.M., Glodek,A., Scott,J.D., Geoghagen,N.S., Weidman,J.F.,
Fuhrmann,J.L., Nguyen,D.T., Utterback,T., Kelley,J.M.,
Roberts,K.M., Kaine,B.B., Borodovsky,M., Klenk,H.P., Fraser,C.M.,
Smith,H.O., Woese,C.R. and Veneer,J.C.
Complete genome sequence of the methanogenic archaeon,
Methanococcus jannaschii
L. Science 273 (5278), 1058-1073 (1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /transT_table=11
/product="m. jannaschii predicted coding region MJ1369"
/protein id="ABA99386.1"
/db_xref="d1:1592014"
/db_xref="d1:1592014"
/fb_xref="d1:1592014"
/db_xref="G1:1592014"
/db_xref="G1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /crānelation="MITVGIDHGTSGITTCIKDNDKKIIFKLKRTELKEKSYLEELEK
HISLEDIDLIALTYSWGDGINKILPTEKVKNRGVLSIEGAGEKVGGGTKVYDEIKESG
HAPVIPGLHRGIECLDERFRALYSHIASPEKVSIAYYKLFGFNDFVLSDISSNTV
TLLIKOGKIFGGFPAGIGALHGFIDLEMIRDIDAGKITANEAFSKAGAVKTAKLY
KGVENTKEEIINNYFNDENCRLAVDSLILSVSMEINSLLPLLDKNKRRVVLAGSIGTL
                                                             BCT 28-JAN-1998
9971 bp DNA linear BCT 28-JAN-1996
Wethanococcus jannaschii section 119 of 150 of the complete genome.
U67577 L77117
U67577.1 GI:2826400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /transT_table=11
/product="M. jannaschii predicted coding region MJ1370"
/protein_id="AAB99387.1"
/Ab_xref="G1.1592015"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /gene="MJ1369"
note="hypothetical protein; identified by GeneMark;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /note="hypothetical protein; identified by GeneMark;
                                                                                                                                                                                                                                                Methanocaldococcus jannaschii.
Methanocaldococcus jannaschii.
Archaea; Euryarchaeota; Methanococci; Methanococcales;
Methanocaldococcaceae; Methanocaldococcus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /organism="Methanocaldococcus jannaschii"
/db_xref="taxon:2190"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /gene="MJ1370"
584. .1570
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /codon start=1
/transI table=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         87. .554
/gene="MJ1369"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /gene="MJ1370"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      codon start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (bases 1 to 9971)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  putative"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        putative"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          . 554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1. .997
                                                    LOCUS
DEFINITION
ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Bource
                                                                                                                                                                                                           KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE
PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gene
                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                               AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMMENT
• FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sec
                J67577/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CDS
```

```
Salaren, S. Linton, L. Nusbaum, C., Lander, E., Ali, A., Allen, N., Anderson, S., Barna, N., Bastien, V., Bloom, T., Boguslavkiy, L., Anderson, S., Barna, N., Bastien, V., Bloom, T., Boguslavkiy, L., Boukhgalter, B. Brown, A., Campoliano, A., Chang, J., Cook, A., Cooke, P., DeArellano, K., Dewar, K., Diaz, J.S., Dodge, S., Faro, S., Govette, M., Graham, L., Grand-Pierre, N., Gord, S., Goyette, M., Graham, L., Grand-Pierre, N., Gratas, A., Karatas, A., Kalas, C., LaRocque, K., Lamazares, R., Landers, T., Lehoczky, J., Marquis, N., Mathews, C., Macchan, C., Macdonald, P., Major, J., Marquis, N., Mathews, C., McCarthy, M., McEwan, P., McRernan, K., Mellad, J., Meneus, L., Mihova, T., Mlenga, V., Murphy, T., Naylor, J., Marchas, L., Mihova, T., Mlenga, V., Murphy, T., Naylor, J., Marchas, L., Olomell, P., Olomell, P., Olomell, P., Olomell, P., Olomell, P., Olomell, P., Olomell, P., Olomell, P., Olomell, P., Olomell, P., Olomell, P., Olomell, P., Olomell, R., Schauers, S., Schupback, R., Phurkhang, P., Pierre, N., Peterson, K., Phunkhang, P., Pierre, N., Schauer, S., Schupback, R., Schauer, S., Schupback, R., Schauer, S., Schupback, R., Spencer, B., Stange-Thomann, N., Stojanovic, N., Strauss, N., Subramann, A., Talamas, J., Tesfaye, S., Theodore, J., Viel, R., Vo, A., Wilson, B., Wu, X., Wyman, D., Ye, W.J., Young, G., Zainoun, J., Zembek, L., Zimmer, A. and Zody, M.
Direct Submitted (05-ARP.2002) Whitehead Institute/MIT Center for Genome Research, 320 Charles Street, Cambridge, MA 02141, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Birren, B., Linton, L., Nusbaum, C., Lander, E., Ali, A., Allen, N., Anderson, S., Barna, N., Bastien, V., Boguslavkiy, L., Boukhgalter, B., Anderson, S., Barna, N., Bastien, V., Roguslavkiy, L., Boukhgalter, B., Brown, A., Camarata, J., Campopiano, A., Chang, J., Chazoro, B., Choepel, Y., Colangelo, M., Collins, S., Collymore, A., Cook, A., Cooke, P., DeArellano, K., Daza, J.S., Dodge, S., Faro, S., Garden, S., Gardyna, S., Gardyna, S., Gardyna, S., Gordes, S., Gorde, S., Gorde, M., Graham, L., Grand-Pierre, N., Hagos, B., Heaford, A., Horton, L., Hulme, W., Illiev, I., Johnson, R., Jones, C., Mardonald, P., Molor, J., Martues, L., Laroders, R., Lud, G., Mardonald, P., Mijor, J., Marquis, N., Methews, L., Marchews, C., Mardonald, P., Mijor, J., Marquis, N., Malor, J., Marchews, C., Norman, C.H., O'Connor, T., Norbecters, R., Minova, T., Manga, V., Murphy, T., Naylor, J., Naylor, J., Naylor, J., Naylor, J., Naylor, J., Samuos, R., Schuback, R., Schuback, R., Stange-Thomann, S., Severy, P., Spencer, B., Stange-Thomann, N., Stojanovic, N., Strauss, N., Subramanian, A., Taalamas, J., Tasfaye, S., Theodore, J., Topham, K., Travers, M., Travis, N., Trigilio, J., Vossiliev, H., Viel, R., Wilse, C., Sammer, A. and Zody, M., Direct Submission
                                                                                                                                                                                                                     AC104893 146353 bp DNA linear HTG 05-APR-2002
Mus musculus clone RP23-288015, WORKING DRAFT SEQUENCE, 11 ordered
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Submitted (22-DEC-2001) Whitehead Institute/MIT Center for Genome Research, 320 Charles Street, Cambridge, MA 02141, USA 3 (bases 1 to 146353)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 (bases 1 to 146353)
Birren, B., Linton, L., Nusbaum, C. and Lander, E.
Mus musculus, clone RP23-288015
                                                                                                                                                                                                                                                                                                                                                               ACI04893.3 GI:20043160
HTG; HTGS PHASE2; HTGS_DRAFT; HTGS_FULLTOP.
Mus musculus.
2301 TTACCCAAAATCCCCACCTATTAGGAATTT 2272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (bases 1 to 146353)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Unpublished
                                                                                                                                                                                                                                                                                                                                            AC104893
                                                                                                                                                                                       AC104893/c
                                                                                                                                                                                                                                                           DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       JOURNAL
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        JOURNAL
                                                                                                                                                                                                                                                                                                                                        ACCESSION
                                                                                                                                                                                                                                                                                                                                                                          VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AUTHORS
                                                                                                                                                 RESULT 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOURCE
                                                                                                                                                                                                                                                                                      LTLYIGIFGSILISISAAYLVGGIFGILIYAKAKKKKPPPEKKIJDIKAYTKNIFSENFUL
DILRYSIPIALTSSSYRLFGDIDNIVIMSIMGFWSGIYGYSSLISRGIFMFASAVSI
DLENSISKTKDISLIKEGIIONTIFSSIFVIGCLFFPEIPLIAFFKTANPEGILCRI
LAISSLEMSYYTLISSALQGIGYAKISFYIILFGLULNIILNLILVNAYGIVGGSLAT
LITSISVFLIGVFAILRIKKHII"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           KPGKIVLDLGCAPGGMMQVAREIVGDKGFVIGIDLQPVKPFEYDNVVAIKGDFTLEEN
LINKIRELIPUDEKKVDVVISDASPNISGYWDIDHARSIDLYTTALQIATEMLKERGNF
VAKVPYGDMIDDYVNLVKKYPEKVYITKPQASRKESAEVYVIAKRYTGKKWEEEDKIK
RVKKVENEDNELLAKKIKEIRKLKSKK"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   KMLNGELENVAVRLKTDI KHKNPSIRDPPIPRVEKTPHPRTGDKYCVYPLMNPSVPUD
DHLLGMTHVLRGKDHIVNTEKQAYIYKYFGWEMPEFIHYGILKIEDIVLSTSSMYKGI
REGLYSGWDVRLGTLLAALRRGIKPEAIYEINKRIGIKQADVKFSWENLYAINKELI
DKDARRFFFWNPKKLIIEGAEKKVLKLRMHPDRPEFGERELIFDGEVYVGDELEEN
KMYRLMELFNIVVEKYDDIALAKYHSDDFKIRRKNKAXIIHMIPVKDSVKVKVLMPDG
EIKEGFAEKDFAKVEVDDIIQFERFGFVRIDKKDNDGFVCCYAHR"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /product="glutamyl-tRNA synthetase (gltx)"
/protein_id="AAB99384.1"
/db_xref="Gl:159202"
/translation="MEEKILDARNAIKYNGKANPKAVLGIFLSENPEYRSKAKEVM
PIVBKYVBEVNKLLSIDBIKKKLEELGEDVKKERKKEKGLELPNVKDKVVMRFAPNPSG
PLHIGHARAAVLNDYFVKKYGGKLILRLEDTDPKRVLPEAYDMIKEDDMLGVKVDEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /product="cell division protein FtsJ"
|protein id="AAB9383.1"
|db xref="GI:1592021"
|trānslation="MGRKDKRWVLQRKRDFYYKLAKKLKYRSRASFKLMQLNEKFWVI
                                                                                                                                                                                                                         PIADTLTI FFSSGI PPAIAKFLAEEKEVDINKY I PILYLMILLSVVGFILTPYIKYIL
GGHYLNLPNI LYFAVGLCVVASTVI AFSRGI LQGLLKMKYLSLTWI VEYTAKVILVFI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VIQSDRIELYYEYGRKLIEMGHAYVCDCNPEEFRELRNKGVPCKCRDRAIEDNLELWE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2481 raaarcrcrecaecerrcrarrrecarcearrarraraecracarrrregraaarre 2422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2421 TCTTTATCAATAGCCTCTTCTAAAATCTTCTCGTAAATTTTTAAAACTCCGGAGTTGTCT 2362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2361 AAAAATCTATAAAAATCAATTATTACTCTTTTTCCAATACTCTTTAATTTGTTTTTTATC 2302
                                                                                                                                                                                           translation="MSLCKDSIYILMSNLYSKGMAYLFYFITAFLLGTEAFGILKGLM"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /note="similar to PID:1051202 SP:050543 percent identity:
51.36; identified by sequence similarity; putative"
/codon start=1
/transl_table=11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTTTTACCTTCAGAAGAATATTTAGTTTCACTCAGGTTTTTCAAAGCTACGCTGTCCCCC 126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TAAGTIGITICAGGCATAAATTIGAAATAAATTATGAGGCTCCATGATATGCTATATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAAAAACGAAACAAAACAAAAAAAACAACCTTTTTAAGAGTTGATGGCTACTCATTTGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note="similar to GB:L42023 SP:P45162 PID:1007333 PID:1221464 PID:1205570 percent identity: 40.10; identified by sequence similarity; putative"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 45.2; DB 1; Length 9971; Pred. No. 1.2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pred. No. 1.2;
0; Mismatches 103; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         187 IGCCICCTCTGCTGAATCAATTAGGAATTT 216
                                  /transl_table=11
/product="SpoVB isolog"
/protein_id="AAB99382.1"
/db_xref="G1:2826401"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         complement (6556. .8217)
/gene="MJ1377"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        complement (6556. .8217)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /gene="MJ1378"
8402. .9850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8402. .9850
/gene="MJ1378"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    'gene="MJ1376"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gene="MJ1376"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     codon_start=1
/transl_table=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /gene="MJ1377"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 20.1%;
Best Local Similarity 51.0%;
Matches 107; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8402. .9850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        gene
```

g

ò

8 8

.9,

셤

```
E 2 (bases 1 to 200110)

S McPherson, J.D. and Waterston, R.H.

Direct Submission

L Submitted (08-APR-2002) Genome Sequencing Center, 4444 Forest Park

B 3 (bases 1 to 200110)

S. McPherson, J.D. and Waterston, R.H.

Direct Submission

L Submitted (25-MAY-2002) Genome Sequencing Center, 4444 Forest Park

Parkway, St. Louis, MO 63108, USA

Parkway, St. Louis, MO 63108, USA

R (bases 1 to 200110)

S. McPherson, J.D. and Waterston, R.H.

Direct Submission

Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                          89100 TAAAAAATGAAATAAAAAAAAATCATACACATTTTTCCAAATAAAGCACATCTTTATAAA 89041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         89040 AAAATTTAGGAACAGTCAGGGTTATACAGAAACCCTGTCTCAAAAAACAAAAACAAC 88981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             38980 AACAACAAAAATCAATTTAATTTATGCAGAATAGCTCCTATTTCTTTATCCTTATGCT 88921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ROD 16-JUL-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mus musculus
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalia, Butheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Submitted (16-JUL-2002) Genome Sequencing Center, 4444 Forest Park
                                                                                                                                                                                                                                                                                                                                                                                     23 TAAAATTTGAAATAAATTATGAGGCTCCATGATATGCTATATTGGTTTTACCTTCAGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            83 AATATTTAGTTTCACTCAGGTTTTTCAAAGCTACGCTGTCCCCCAAAAAACGAAACAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           143 CAAAAAAACAACCTTTTTAAGAGTTGATGGCTACTCATTTGATCTGCCTCCTCTGGAA
                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Parkway, St. Louis, MO 61108, USA
On May 25, 2002 this sequence version replaced gi:20069804
                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Center: Washington University Genome Sequencing Center Center code: WUGSC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Center project name: M_BA0431G18
                                                                                                                                                                                                                                                                                 Query Match
19.6%; Score 44; DB 2; Length 146353;
Best Local Similarity 51.5%; Pred. No. 1.4;
Matches 101; Conservative 0; Mismatches 95; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mus musculus clone RP23-431G18, complete sequence. AC117237 AC117237.2 GI:21206431
                                                                                                                                                                                                             1002 others
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Web site:http://genome.wustl.edu/gsc/index.shtml
Contact: submissions@watson.wustl.edu
                                                                       ature //occe="assembly_fragment"

83212. 113014

//occe="assembly_fragment"

ature //occe="assembly_fragment"

//occe="assembly_fragment"

46768 a 27185 c 26808 g 44590 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 (bases 1 to 200110)
MCPherson, J.D. and Waterston, R.H.
The sequence of Mus musculus clone
Unpublished
     44484. .56097
/note="assembly_fragment"
56198. .83111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Genome Center
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 88920 AAATAAATTATTTTT 88905
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  203 TCAATTAGGAATTTTT 218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           nouse mouse.
          misc_feature
                                                         misc_feature
                                                                                                           misc_feature
                                                                                                                                                        misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DEFINITION
ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                          BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 10
AC117237/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE
JOURNAL
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                            ------ Genome Center
Center: Whitehead Institute/ MIT Center for Genome Research
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                * NOTE: This is a 'working draft' sequence. It currently consists of 11 contigs. Gaps between the contigs are represented as runs of N. The order of the pieces is believed to be correct as given, however the sizes of the gaps between them are based on estimates that have provided by the submittor.

This sequence will be replaced by the finished sequence as soon as it is available and the accession number will be preserved.

1 872: contig of 872 bp in length 873 972: gap of 100 bp 973 4028 4127: gap of 100 bp 4128 428 7965: contig of 3838 bp in length 7965 sootig of 3838 bp in length 8765: contig of 6989 bp in length 8765: contig of 6989 bp in length 8765: contig of 6989 bp in length 8765: contig of 6989 bp in length
                                                                                                                                                                                                                                                  Center clone name: 288 0.15
Sequencing vector: Plasmid; via 100% of reads Sequencing vector: Plasmid; via 100% of reads Chemietry: Dye-terminator Big Dye; 100% of reads Assembly program: Phrap; version 0.960731
Consensus quality: 14424 bases at least Q30 Consensus quality: 144423 bases at least Q30 Consensus quality: 144956 bases at least Q30 Insert size: 152000; agarose-fp Insert size: 145353; sum-of-contigs Quality coverage: 6.1 in Q20 bases; sum-of-contigs Quality coverage: 6.4 in Q20 bases; sum-of-contigs
All repeats were identified using RepeatMasker:
Smit, A.F.A. & Green, P. (1996-1997)
http://ftp.genome.washington.edu/RM/RepeatMasker.html
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               44384 44483: gap of 100 bp 44484 56097: contig of 11614 bp in length 56098 56199: gap of 100 bp 56198 83111: contig of 26914 bp in length 83112 83211: gap of 100 bp 83212 113014: contig of 29803 bp in length 113015 113114: gap of 100 bp 113115 145353: contig of 33239 bp in length. Location/Qualifiers
                                                                                                                                                                                Contact: sequence_submissions@genome.wi.mit.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     131: gap of 100 bp
33166: contig of 10835 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       44383: contig of 11117 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8066 15054: contig of 6989 bp in length
15055 15154: gap of 100 bp
22513: contig of 7077 bp in length
22212 22331: gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /clone_lib="RPCI-23 Female Mouse BAC"
                                                                                                                           Center code: WIBR
Web site: http://www-seq.wi.mit.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1128. .7965
/note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1066. 15054
'note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    973. .4027
/note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  'note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /organism="Mus musculus"
/db_xref="taxon:10090"
/clone="RP23-288015"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               note="assembly_fragment'
                                                                                                                                                                                                                          Center project name: L19047
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       33167 33266:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURES
```

ö

Gaps

.; 0

```
96; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AC006281
                                                                                                                                                                                                                                                                                                                                                                                                                                                  AC006281
                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 12
AC006281/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             JOURNAL
REFERENCE
  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                               ઠ
                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                       105510 AAAAAAAAAAAAAAAACAACCAGAAAATATTTTGATGGGAACAGTTTATATTTTA 105451
                                                                                                                                                                                                                                                                          NOTE: It currently consists of 1 contigs. Gaps between the contigs are represented as runs of N. The order of the pieces is believed to be correct as given, however the sizes of the gaps between them are based on estimates that have provided by the submitter. This sequence will be replaced by the finished sequence as soon as it is available and the accession number will be preserved.

* NOTE: This is a "working draft, sequence."
                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AP005406 128526 bp DNA linear HTG 13-JUN-2002 Oryza sativa (japonica cultivar-group) chromosome 8 clone B1147B12, *** SEQUENCING IN PROGRESS ***, in ordered pieces.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Published Only in Database (2002)

2 (bases 1 to 128526)

2 (bases 1 to 128526)

2 (basexi, r. Marsumoto,T. and Katayose,Y.

Direct Submission

Submitted (12-JUN-2002) Takuji Sasaki, National Institute of
Agrobiological Sciences, Rice Genome Research Program; Kannondai
2-1-2, Tsukuba, Ibaraki 305-8602, Japan (E-mail:teasaki@insa.affrc.go.jp, URL:http://rgp.dna.affrc.go.jp/, Tel:81-298-38-7441, Fax:81-298-38-7468)
                                                                                                                                                                                                                                     75 TTCAGAAGAATATTTAGTTTCACTCAGGTTTTTCAAAGCTACGCTGTCCCCCAAAAAAGG 134
                                                                                                                                                                                                                                                                                                                      135 AAACAAAACAAAAAACAACCTTTTTAAGAGTTGATGGCTACTCATTTGATCTGCCTCCT 194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Oryza sativa (japonica cultivar-group)
Eukaryota, Viridiplantae, Streptophyta, Embryophyta, Tracheophyta,
Spermatophyta, Magnoliophyta, Liliopsida, Poales, Poaceae,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AP005406.1 GT:21396516
HTG; HTGS, PHASE2.
Oryza setiva (japonica cultivar-group) (cultivar:Nipponbare) DNA,
clone:B1147B12.
                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sasaki,T., Matsumoto,T. and Katayose,Y.
Oryza sativa nipponbare(GA3) genomic DNA, chromosome 8, BAC
clone:B1147B12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /organism="Oryza sativa (japonica cultivar-group)
                                                                                                                                                 Length 200110;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 42.6; DB 2; Length 128526; Pred. No. 2.9;
                                                                                                                                                                                           .,
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 by the finished sequence as soon as it is available the accession number will be preserved.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            113 others
                                                                                                                                                                                           Indels
                                                                                                                                               ch 19.5%; Score 43.8; DB 10; Similarity 55.6%; Pred. No. 1.4; 84; Conservative 0; Mismatches 67;
                                                                                                                                                                                                                                                                                                                                                                                                                                     105450 TTTATTTACATTAGGGGTGTTATGTGTGTTT 105420
                                                                                                                                                                                                                                                                                                                                                                                                        225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            25748 c 26754 g 37999 t
                                                                                   62980 t
                                                                                                                                                                                                                                                                                                                                                                                                        195 CTGCTGAATCAATTAGGAATTTTTTTTTT
                        organism="Mus musculus"
                                     /db_xref="taxon:10090"
/clone="RP23-431G18"
37978 c 38823 g 62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              db xref="taxon:39947"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          irhartoideae; Oryzeae; Oryza.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /clone="B1147B12"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        18.9%;
51.9%;
  .200110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
                                                                                                                                                                     Best Local Similarity
Matches 84; Conserv
                                                                                     æ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          37912 a
                                                                                   60329
                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BASE COUNT
ORIGIN
    source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 11
AP005406/c
                                                                                   BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SDOOT
                                                                                                                                                                                                                                                                          а
                                                                                                                                                                                                                                                                                                                  ò
```

```
35593 AATCCCAGAGAGCTCAAAGTTTGCATTGCTGACCCCCCAAAAAAGAAACGAAACAAA 35534
                                                                                                                                                                                                                                                                                                                                                                                35533 GCATACATGAAAAATGTCAATGATAAGTTAATAAAGATGGTACAACGCATAATCCAACCA 35474
                                                                                                                          35653 TGAAATAGCTGGTGATAATCCAGGGAAATCGTCATCATTTTCAAAGACATTGGATGATAG 35594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              HTG 12-AUG-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2 (bases 1 to 199551)
Hyman,R.W., Fung,E.L., Qin,F., Tamaki,T., Kurdi,O.B. and Davis,R.W.
Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       82 GAATATTTAGTTTCACTCAGGTTTTTCAAAGCTACGCTGTCCCCCAAAAAAACGAAACAAA 141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Plasmodium falciparum chromosome 12 clone 3D7, *** SEQUENCING IN
                                                               30 TGAAATAAATTATGAGGCTCCATGATATGCTATATTGGTTTTACCTTCAGAAGAATATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               22 ATAAAATTTGAAATAAATTATGAGGCTCCATGATATGCTATATTGGTTTTACCTTCAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Submitted (05-JAN-1999) Stanford DNA Sequencing and Technology Center, Stanford University, 855 California Avenue, Palo Alto, 94304, USA
                                                                                                                                                                                                                                                                                                                    150 ACAACCTTTTTAAGAGTTGATGGCTACTCATTTGATCTGCCTCCTCTGCTGAATTA
                                                                                                                                                                                             90 AGTTTCACTCAGGTTTTTCAAAGCTACGCTGTCCCCCAAAAAACGAAACAAAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HTG; HTGS_PHASE1.
Plasmodium falciparum.
Plasmodium falciparum
Eukaryota; Alveolata; Apicomplexa; Haemosporida; Plasmodium.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Rowley, D., Mao, J., Tamaki, T.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 On Aug 12, 2000 this sequence version replaced gi:8810457.

* NOTE: This is a 'working draft' sequence. It currently consists of 2 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 18.8%; Score 42.4; DB 2; Length 199551; Best Local Similarity 50.5%; Pred. No. 2.9; Matches 103; Conservative 0; Mismatches 101; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 41526: contig of 41526 bp in length
41527 41726: gap of unknown length
41727 199551: contig of 157825 bp in length.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       200 others
89; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Organism="Plasmodium falciparum"
db_xref="taxon:5833"
chromosome="12"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Kurdi,O.B., Conway,A.B. and Davis,R.W. Plasmodium falciparum 3D7 chromosome 12
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    17543 c 19759 g 78852 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PROGRESS ***, 2 unordered pieces
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              199551 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Hyman, R.W., Fung, E.L., Qin, F.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        clone="PFYACB8-95"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (bases 1 to 199551)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AC006281.8 GI:9797738
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /clone="3D7"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 . .199551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  35473 CAATT 35469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                   210 GGAAT 214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       83197 a
```

Chang, J.,

g ઠે

ò

```
Daukingarler, B., Brown, A., Camarata, D., Campoplano, A., Chagare, B., Choepel, Y., Colangelo, M., Collins, S., Collymore, A., Cook, A., Cooke, P., DeArellano, K., Dewar, K., Diaz, J.S., Dodge, S., Farso, S., Ferrelara, P., FitzGerald, M., FitzHugh, W., Gage, D., Galagan, J., Gardyna, S., FitzGerald, M., FitzHugh, W., Gage, D., Grand-Pierre, N., Hagos, B., Horton, L., Hulme, W., Iliev, I., Johnson, R., Jones, C., Kamat, A., Karatas, A., Kells, C., LaRocque, K., Liu, G., MacLean, C., Macdone, C., Macdone, C., Macdone, C., Macdone, C., Macdone, C., Macdone, C., Macdone, C., Macdone, C., Macdone, C., Macdone, C., Macdone, C., Macdone, C., Macdone, C., Macdone, C., Macdone, C., Macdone, C., Macdone, C., Macdone, C., Macdone, C., Macdone, C., Macdone, C., Macdone, C., Macdone, C., Macdone, C., Macdone, C., Macdone, C., Macdone, C., Macdone, C., Macdone, C., Macdone, C., Macdone, C., Peterson, K., Phunkhang, P., Pierre, N., Pollara, V., Raymond, C., Retta, R., Phunkhang, P., Pierre, N., Pollara, V., Raymond, C., Retta, R., Santos, R., Schauer, S., Schupback, R., Scanen, S., Severy, P., Santos, R., Schauer, S., Schupback, R., Stange-Thomann, N., Stojanovic, N., Strauss, N., Subramanian, A., Talamas, J., Tesfaye, S., Theodore, J., Topham, K., Travis, N., Travis, N., Trigilio, J., Young, G., Zainnoun, J., Zembek, L., Zimmer, A. and Zody, M. Direct Submission

Submitted (11-JUN-2002) Whitehead Institute/MIT Center for Genome Research, 320 Charles Street, Cambridge, MA 02141, USA

On Jun 11, 2002 this sequence version replaced gi:14994158.

All repeats were identified using RepeatMasker:
Smit, A. F. A. & Green, P. (1996-1997)

http://ftp.genome.washington.edu/RM/RepeatMasker.html
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Only the last 147.8 kb of this clone are being submitted.
The remainder overlaps accession number AC105129 [WIGGR project L22971].
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Contact: sequence submissions@genome.wi.mit.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /clone lib="RPCI-11 Human Male BAC"
572. .672
/rpt_family="MIR"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Web site: http://www-seq.wi.mit.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Project Information
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /organism="Homo sapiens"
/db_xref="taxon:9606"
/chromosome="15"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            rpt_family="MIR3"
943.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /rpt_family="MIR3"
complement (3473. .3526)
/rpt_family="L2"
3584. .3758
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Center project name: L2618
Center clone name: 346_A_8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /rpt_family="AluJo"
1357. 1665
/rpt_family="AluSg"
1666. 1699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /rpt_family="AluJo"
3049_ .2069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            clone="RP11-346A8"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        'rpt_family="(TC)n"
1072. .2096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /rpt_family="(CA)n"
2154. .2185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  'rpt_family="(TG)n"
complement(2458..2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        rpt_family="L2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Center code: WIBR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          . 1699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2026
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    map="15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Birren, B., Linton, L., Nusbaum, C., Lander, E., Allen, N., Anderson, M., Baldwin, J., Barna, N., Beckerly, R., Boguslavkiy, L., Boukhgalter, B., Brown, A., Castlle, A., Collangelo, M., Collins, S., Collymore, A., Cooke, P., Darellano, K., Dewar, K., Domino, M., Donnelan, L., Doyle, M., Ferreira, P., Fitzhugh, W., Forrest, C., Funke, R., Gage, D., Galagan, J., Gardynas, S., Grant, G., Hagos, B., Heaford, A., Horton, L., Howland, J. G., Johnson, R., Jones, C., Kann, L., Karatas, A., Klein, J., Lehoczky, J., Lieu, C., Locke, K., Macdonald, P., Marquis, N., McKernan, K., McGanghin, J., Melrin, J., Morrow, J., Naylor, J., Norman, C.H., O'Connor, T., O'Donnell, P., Peterson, K., Pollara, V., Riley, R., Roy, A., Santos, R., Severy, P., Stange-Thomann, N., Stojanovic, N., Subramanian, A., Talamas, J., Wyman, D., Ye, W.J., Zlumer, A. and Zody, M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Surrent, B., Linton, L., Nusbaum, C., Lander, E., Ali, A., Allen, N., Anderson, S., Barna, N., Bastien, V., Bloom, T., Boguslavkiy, L., Anderson, S., Barna, N., Camazara, J. Campoplano, A., Changaj, J., Choepel, Y., Canagelo, M., Collins, S., Collymore, A., Chasaro, B., Choepel, Y., Colangelo, M., Collins, S., Collymore, A., Cooke, P., DeArellano, K., Dewar, K., Diaz, J.S., Dodge, S., Farcs, S., Ferrerara, P., FitzGerald, M., FitzHugh, W., Gage, D., Galagan, J., Gardyna, S., Ginde, S., Goyelte, M., Gage, D., Gand-Pierre, N., Hagos, B., Horton, L., Hulme, W., Iliev, I., Johnes, C., Kamat, A., Karatas, A., Kells, C., LaRocque, K., Liu, G., MacLean, C., Macdonald, P., Marguis, N., Matchan, C., Macdonald, P., Marguis, N., Mardis, C., McCarthy, M., McEwan, P., McEran, K., Meldrim, J., Mencus, L., Mihova, T., Mlenga, V., Murphy, T., O'Donnell, P., O'Nell, D., Oliver, J., Peterson, K., Phunkhang, P., Pierre, N., O'Nell, D., Oliver, J., Rosetli, M., Rosetli, M., Riley, K., Rise, C., Schupback, R., Seaman, S., Severy, P., Spencer, B., Stange-Thomann, N., Stolaman, J., Trayers, M., X., Wayman, D., Ye, W.J., Young, Young, G., Zainoun, J., Zembek, L., Zimmer, A. and Zody, M., Trigilio, J., Ye, W.J., Young, G., Zainoun, J., Zembek, L., Zimmer, A. and Zody, M.
                                                                                                         ACO11846 147760 bp DNA linear PRI 11-JUN-2002
Homo sapiens chromosome 15, clone RP11-346A8, complete sequence.
AC011846
                                                              142 ACAAAAAAAAAACCTTTTTAAGAGTTGATGGCTACTCATTTGATCTGCCTCCTCTGCTGA 201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryoča; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

    (bases 1 to 147760)

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Submitted (15-OCT-1999) Whitehead Institute/MIT Center for Genome Research, 320 Charles Street, Cambridge, MA 02141, USA 3, (bases 1 to 147760)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Submitted (10-JUN-2002) Whitehead Institute/MIT Center for Genome Research, 320 Charles Street, Cambridge, MA 02141, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Birren, B., Linton, L., Nusbaum, C., Lander, E., Ali, A., Allen, N., Anderson, S., Barna, N., Bastien, V., Bloom, T., Boguslavkiy, L.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Birren, B., Linton, L., Nusbaum, C. and Lander, E. Homo sapiens chromosome 15, clone RP11-346A8
                                                                                                                                                                                                                                                   22766 Trcrrrrrrrrrrrrrrrrrrrrrrr 22743
                                                                                                                                                                                    202 ATCAATTAGGAATTITITITIT 225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AC011846.16 GI:21389294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                to 147760)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (bases 1 to 147760)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                            RESULT 13
AC011846
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE
AUTHORS
```

136

```
138919 recararrerrerritiraarririderigiridaageksaagareararrerigie 138860
107925 CACTAATAAAAAATCCATTTGGGTACTATGCTCCCACTCCACAGTATAATAATTATTCACTC 107984
                                                                             ACO67745 156140 bp DNA 'linear PRI 10-MAY-2002
Homo sapiens chromosome 10 clone RP11-417C21, complete sequence.
ACO67745
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Direct Submission
Submitted (10-MAY-2002) Genome Therapeutics Corporation, 100 Beaver
Street, Waltham, MA 02453, USA
On May 10, 2002 this sequence version replaced gi:13811871.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Therapeutics Corporation, 100 Beaver
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       200
                                                                                                                                                                                                                                                                                                                Homo sapiens
Sukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Butheria, Primates, Catarrhini, Hominidae, Homo.
1 (bases 1 to 156140)
                                                                                                                                                                                                                                                                                                                                                                                          Genome Therapeutics Corporation Sequencing Center: Human Genome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             139039 CGTTTAATTCGTTTATACTTAATATACTCACTGATACAATATGTGAGTTTTTTCTGCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             81 AGAATATTTAGTTTCACTCAGGTTTTTCAAAGCTACGCTGTCCCCCAAAAAACGAAACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        138979 TTTAİTTİGGĞİTİÇTTİGCTCCİCİTİTCCCCÖİTTCÖİĞİĞTTATATAAAGĞAATTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       141 AACAAAAAAAACCTTTTTAAGAGTTGATGGCTACTCATTTGATCTGCCTCCTGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                21 CATAAAATTTGAAATTATGAGGCTCCATGATATGCTATATTGGTTTTACCTTCAGA
                                              77 CAGAAGAATATTTAGTTTCACTCAGGTTTTTCAAAAGCTACGCTGTCCCCCAAAAAAAGGAA
                                                                                                                                        108045 AAAAAAAAGGCAAAGTCATTTTCCTTGGGTCTCTTCTATTAATTTTCTC 108094
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 50.2%; Pred. No. 4.2;
Matches 103; Conservative 0; Mismatches 102; Indels 0;
                                                                                                           137 ACAAAACAAAAAAACAACCITITITAAGAGTTGATGGCTACTCATTTGATC 186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /clone="RP11-417C21"
/clone_lib="RPCI-11"
38631 c 34570 g 38736 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    138859 TCCTAGTGATTACTCTTTTTTTTT 138835
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /organism="Homo sapiens"
/db_xref="taxon:9606"
/chromosome="10"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Genome
53, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      201 AATCAATTAGGAATTTTTTTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Direct Submission
Submitted (27-APR-2000) Ger
Street, Waltham, MA 02453,
3 (bases 1 to 156140)
                                                                                                                                                                                                                                                                 AC067745.7 GI:20522196
                                                                                                                                                                                                                                                                                                                                                                                                                                    2 (bases 1 to 156140)
Smith, D.R.
                                                                                                                                                                                                                                                                                                                                                                                                             Sequence Data
                                                                                                                                                                                                                                                                                                                                                                                                                        Unpublished
                                                                                                                                                                                                                                                                                                                                                                           Smith, D.R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         44203 a
                                                                                                                                                                                       RESULT 14
AC067745/c
LOCUS
                                                                                                                                                                                                                                                                                                                 ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BASE COUNT
ORIGIN
                                                                                                                                                                                                                                    DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                     JOURNAL
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                      ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                           REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AUTHORS
                                                                                                                                                                                                                                                                                 KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                             g
                                                                                                                                     g
                                                ò
                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /rpt_family="Alusx"
14836. 14999
-/rpt_family="L2"
-complemer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              rpt_family="MIR3" 12877)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           omplement (15356. .15637)
rpt family="L2"
              family="AluSx"
ement(407
                                             family="AluSx"
                                                                                                                                                                                                                                                              rpt_family="L3" . 7530)
050. .R1e^
                                                                                                                                                                                                                                                                                                                                                                                       Tpt_family="Alusx"
83. .960
                                                                                                                                       family="AluY"
ement(A777
                                                                                                                                                                    family="AluSx" .7164. .7164" .7164
                                                                             omplement (4737, .4774)
rpt_family="MIR"
                                                                                                                                                                                                                                                                                                              rpt_family="MIR3"
omplement(8169..8480)
rpt_family="AluJo"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /rpt family=" (CCG) n"
12084. .12161
/rpt family="G-rich"
complement (12722. .12)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   rpt_family="GC_rich"
2008. .12028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         16<u>0</u>64. .16363
/rpt_family="AluSq"
16597. .16909
/rpt_family="AluJb"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1647. .11688
rpt family="(CA)n"
1960. .11991
                                                                                                                                                                                                                                                                                                                                                                               family="MIR3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          family="MIR3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3668. .14227
rpt_family="L2"
omplement(14228.
                                                                                                                                                                                                  9. .7166
t family="L2"
                                                                                                                             family="MIR"
                                                                                                                                                                                                                                                       family="MIR"
                                                                                                                                                                            omplement (6726.
                                                                                                                                                                                                                                                                                                                                                                                                                               rpt_family="L2"
755. 1011
                                                                                                                                                                                                                                                                                                                                                                                                                                                         . .10149
_family="L2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             family="L3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4514. .14525
rpt_family="L2"
                                                                                                                                               omplement (5262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .15991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity 52.9
Matches 90; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       repeat_region
                    repeat_region
                                                                                                                                                                                                                                                                                                                                 repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              repeat_region
                                                   repeat_region
                                                                                  repeat_region
                                                                                                                repeat_region
                                                                                                                                               repeat_region
                                                                                                                                                                          repeat_region
                                                                                                                                                                                                          repeat_region
                                                                                                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                                                      repeat_region
                                                                                                                                                                                                                                                                                                     repeat_region
                                                                                                                                                                                                                                                                                                                                                                  repeat_region
                                                                                                                                                                                                                                                                                                                                                                                               repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                            repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                            repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         repeat_region
```

18.7%; Score 42; DB 952.9%; Pred. No. 3.8; ive 0; Mismatches

138920

HTG 27-AUG-2000

linear

DNA

215467 bp

AC013420

RESULT 15 AC013420 LOCUS

0

Gaps

. 0

DB 9; Length 147760; 80; Indels

138980

```
Search completed: June 7, 2003, 20:57:10 Job time: 1311 secs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                  S Muzny, D.M., Adams, C., Bailey, M., Barbaria, J., Blankenburg, K., Bodota, B., Bouck, J., Buoks, A., Buhay, C., Bunac, C., Bovie, S., Bovoks, A., Buhay, C., Bunac, C., Burkett, C., Burrows, J., Carter, M., Chacko, J., Chen, Z., Cox, C., David, R., Delgado, O., Deshazo, D., Ding, Y., Domah-Rashid, N., Dugan-Rocha, S., Durbin, K. J., Fernandez, C., Ferraguto, D., Forcum-Tansey, J., Prantz, P., Ganesh, R., Gorrell, J.H., Gorrell, J.H., Gorrell, J.H., Jackson, L.E., Jackson, A., Hogues, M., Hally, S., Kondejewski, N., Kong, Y., Kovar, C., Leal, B., Li, Z., Lichtarge, O., Liu, J., Liu, W., Logan, O., Lozado, R.J., Lu, J., Lichtarge, N., Martin, R., Nguyen, N., Nguyen, N., Nguyen, N., Nguyen, N., Nguyen, N., Nguyen, N., Nguyen, N., Nguyen, S., Oswal, G., Parter, D., Rives, M., Samuel, S., Say, J., Scherer, S., Shah, E., Shen, H., Simon, M., Samuel, S., Say, J., Scherer, S., Shah, E., Shen, H., Simon, M., Samuel, S., Say, J., Scherer, S., Wallington, S., Weinstock, G., Weinstock, I.R., Williamson, A., Werley, K., Wren, J., Wrensford, G., Yu, W., Zhou, X., Nelson, D. and Ghan, R., Reiter, D., Warensford, G., Yu, W., Zhou, X., Nelson, D. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequencing vector: M13; L08821
Chemistry: Dye-terminator Big Due: 100% of reads
Sequencing vector: M13; L08821
Sequencing vector: M13; L08821
Chemistry: Dye-terminator Big Due: 100% of reads
Assembly program: Phrap; version 0.990329
Consensus quality: 195308 bases at least Q40
Consensus quality: 195318 bases at least Q20
Estimated insert size: 207191; sum-of-contiggs estimation
Cuality coverage: 2.7x in Q20 bases; agarose-fp estimation
Quality coverage: 3.7x in Q20 bases; sum-of-contigs estimation
Quality coverage: 3.3x in Q20 bases; sum-of-contigs estimation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NOTE: Batimated insert size may differ from sequence length (see http://www.hgsc.bcm.tmc.edu/docs/Genbank draft_data.html). NOTE: This is a "working draft' sequence. It currently consists of 19 contigs. The true order of the pieces is not known and their order in this sequence record is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Submitted (10-NOV-1999) Human Genome Sequencing Center, Department of Molicine, One Baylor Plaza, Houston, TX 77030, USA On Aug 26, 2000 this sequence version replaced gi:9719539.
                                                                                                                                                                                                                  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
   Homo sapiens clone RP11-619F23, WORKING DRAFT SEQUENCE, 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          30720: contig of 30720 bp in length
30820: gap of unknown length
57766: contig of 26946 bp in length
57866: gap of unknown length
79135: contig of 21269 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Center: Baylor College of Medicine Center code: BCM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Center clone name: RP11-619F23
                                                                                                                      HTG; HTGS PHASE1; HTGS DRAFT Homo sapiens.
                                                               AC013420
AC013420.13 GI:9929508
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (bases 1 to 215467)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Worley, K.C.
Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   be preserved
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          30721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                30821
57767
57867
                                                      ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE
JOURNAL
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                        REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE
JOURNAL
```

COMMENT

```
190521 TTTATTTTGGGTTTCTTTGCTCCTCTTTCCCCCTTTCCTGTCTTATATTAAAGGAATTGT 190580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 190581 TCCATATTCTTCTTTTTTTTTTTTTTTCTTCATAAGCTGTAGATCATATTCTGTTC 190640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              81 AGAATATTTAGTTTCACTCAGGTTTTTCAAAGCTACGCTGTCCCCCAAAAAACGAAACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     21 CATAAAATTTGAAATAAAATTATGAGGCTCCATGATATGCTATATTGGTTTTACCTTCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      141 AACAAAAAAACAACCTTTTTAAGAGTTGATGGCTACTCATTTGATCTGCCTCCTCTGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 18.6%; Score 41.8; DB 2; Length 215467; Best Local Similarity 50.2%; Pred. No. 3.9; Matches 103; Conservative 0; Mismatches 102; Indels 0;
contig of 14636 bp in length gap of unknown length contig of 15716 bp in length gap of unknown length contig of 14845 bp in length gap of unknown length length gap of unknown length length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1860 others
                                                                                                                                unknown length
of 12325 bp in length
unknown length
                                                                                       of 14614 bp in length
unknown length
                                                                                                                      of 11042 bp in length
                                                                                                                                                                              8647 bp in length
                                                                                                                                                                                                                                                                                                                                                                                    contig of 3302 bp in length
gap of unknown length
                                                                                                                                                                                                       6996 bp in length
                                                                                                                                                                                                                                                                 7629 bp in length
                                                                                                                                                                                                                                                                                                                         bp in length
                                                                                                                                                                                                                                                                                                                                                       bp in length
                                                                                                                                                                                                                                       bp in length
                                                                                                                                                                                                                                                                                              in length
                                                                                                                                                                                                                                                                                                                                                                                                                             length
                                                                                                                                                                                                                                                                                                              ength
                                                                                                                                                                                           ength
                                                                                                                                                                                                                        ength
                                                                                                                                                                                                                                                     ength
                                                                                                                                                                                                                                                                                  ength.
                                                                                                                                                                                                                                                                                                                                           ength
                                                                                                                                                                                                                                                                                                                                                                        ength
                                                                                                                                                                                                                                                                                              contig of 4770 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  49030 g 55779 t
                                                                                                                                                                                                                                                                                  unknown
                                                                                                                                                                                                                                                                                                                                                      contig of 2875
gap of unknown
                                                                                                                                                                                                                                                                                                                                                                                                                              gap of unknown
contig of 1180
                                                                                                                                                                                             unknown
                                                                                                                                                                                                                          unknown
                                                                                                                                                                                                                                       8053
                                                                                                                                                                                                                                                                                                                            of 4550
                                                                                                                                                                                                                                                                                                                                           unknown
                                                                                                                                                                                                                                                   unknown
                                                                                                                                                                                                                                                                                                              unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          190641 TCCTAGTGATTACTCTTTTTTTTT 190665
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                201 AATCAATTAGGAATTTTTTTTTT 225
                                                                                                                                                                                                                                                                    of
                                                                                                                                                                              contig of
                                                                                                                                                                                                                                       contig of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |db_xref="taxon:9606"
|clone="RP11-619F23"
                                                                                                                                                                                                          contig of
                                                                                                                                                                                                                                                                                                                                                                                                                 contig of
                                                                                      contig
gap of v
gap of v
contig
contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                          location/Qualifiers
                                                                                                                                                                                                                                                  gap of
                                                                                                                                                                                             gap of
                                                                                                                                                                                                                        gap of
                                                                                                                                                                                                                                                                    contig
                                                                                                                                                                                                                                                                                                                          contig
                                                                                                                                                                                                                                                                                  gap of
                                                                                                                                                                                                                                                                                                                                           gap of
                                                                                                                                                                                                                                                                                                              gap of
                                                                                                                                                                                                                                                                                                                                                                      207233:
                                                                                                                                                 162913:
                                                                                                                                                                163013:
                                                                                                                                                                               171660:
                                                                                                                                                                                                            178756:
                                                                                                                                                                                                                                                                    .94638:
                                                                                                                                                                                                                                                                                                              99608:
                                                                                                                                                                                                                                                                                                                            04158:
                                                                                                                                                                                                                                                                                                                                                                                     210535:
                                                                                                                                                                                                                                                                                                                                                                                                                              214287:
                                                                                                                                                                                                                                                                                                                                                                                                                                               215467:
                                                                                                                                150489
                               93972
                                                           109788
124633
124733
139347
                                                                                                                                                                                                    192161
                                                                                                                                                                                                                                    178857
                                                                                                                                                                                                                                                               87010
                                                                                                                                                                                                                                                                                                                                                       204259
                                                                                                                                                                                                                                                                                                                                                                                                                                             214288
                                              09688
                                                                                                                      39447
                                                                                                                                                                                                                                                                                  94639
                                                                                                                                                                                                                                                                                                              99509
                                                                                                                                                                                                                                                                                                                          99609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  58444 a
                                                                                                                                                                                           71661
```

THIS PAGE BLANK (uspro)

Sequence:

Run on:

Searched:

Database

09176523/Page

Schrigg

58 2

9

360

Result 9, 2003, 08:36:50 ; Search time 1687 Seconds (without alignments) 3353.325 Million cell updates/sec US-09-765-231A-58 225 1 tgatggtaagttgtttcagg.....attaggaattttttttt 225 Pending_Patents_NA_Main:*

1: /cgn2_6/ptodata/1/pna/USO6_COMB.seq:*

2: /cgn2_6/ptodata/1/pna/USO6_COMB.seq:*

3: /cgn2_6/ptodata/1/pna/USO8_COMB.seq:*

4: /cgn2_6/ptodata/1/pna/USO8_COMB.seq:*

6: /cgn2_6/ptodata/1/pna/USO8_COMB.seq:*

7: /cgn2_6/ptodata/1/pna/USO8_COMB.seq:*

8: /cgn2_6/ptodata/1/pna/USO8_COMB.seq:*

10: /cgn2_6/ptodata/1/pna/USO8_COMB.seq:*

10: /cgn2_6/ptodata/1/pna/USO8_COMB.seq:*

11: /cgn2_6/ptodata/1/pna/USO8_COMB.seq:*

12: /cgn2_6/ptodata/1/pna/USO8_COMB.seq:*

13: /cgn2_6/ptodata/1/pna/USO8_COMB.seq:*

14: /cgn2_6/ptodata/1/pna/USO8_COMB.seq:*

15: /cgn2_6/ptodata/1/pna/USO8_COMB.seq:*

16: /cgn2_6/ptodata/1/pna/USO8_COMB.seq:*

16: /cgn2_6/ptodata/1/pna/USO8_COMB.seq:*

17: /cgn2_6/ptodata/1/pna/USO8_COMB.seq:*

18: /cgn2_6/ptodata/1/pna/USO8_COMB.seq:*

19: /cgn2_6/ptodata/1/pna/USO8_COMB.seq:*

10: /cgn2_6/ptodata/1/pna/USO8_COMB.seq:*

10: /cgn2_6/ptodata/1/pna/USO8_COMB.seq:*

10: /cgn2_6/ptodata/1/pna/USO8_COMB.seq:*

10: /cgn2_6/ptodata/1/pna/USO8_COMB.seq:*

10: /cgn2_6/ptodata/1/pna/USO8_COMB.seq:*

10: /cgn2_6/ptodata/1/pna/USO8_COMB.seq:*

10: /cgn2_6/ptodata/1/pna/USO8_COMB.seq:*

10: /cgn2_6/ptodata/1/pna/USO8_COMB.seq:*

10: /cgn2_6/ptodata/1/pna/USO8_COMB.seq:*

10: /cgn2_6/ptodata/1/pna/USO8_COMB.seq:*

10: /cgn2_6/ptodata/1/pna/USO8_COMB.seq:*

10: /cgn2_6/ptodata/1/pna/USO8_COMB.seq:*

10: /cgn2_6/ptodata/1/pna/USO8_COMB.seq:*

10: /cgn2_6/ptodata/1/pna/USO8_COMB.seq:*

10: /cgn2_6/ptodata/1/pna/USO8_COMB.seq:*

10: /cgn2_6/ptodata/1/pna/USO8_COMB.seq:*

10: /cgn2_6/ptodata/1/pna/USO8_COMB.seq:*

10: /cgn2_6/ptodata/1/pna/USO8_COMB.seq:*

10: /cgn2_6/ptodata/1/pna/USO8_COMB.seq:*

10: /cgn2_6/ptodata/1/pna/USO8_COMB.seq:*

10: /cgn2_6/ptodata/1/pna/USO8_COMB.seq:*

10: /cgn2_6/ptodata/1/pna/USO8_COMB.seq:*

10: /cgn2_6/ptodata/1/pna/USO8_COMB.seq:*

10: /cgn2_6/ptodata/1/pna/USO8_COMB.seq:*

10: /cgn2_6/ptodata/1/pna/USO8_COMB.seq:*

10: /cgn2_6/ptodata/1/pna/USO8_COMB.seq:*

10: /cgn2_6/ptodata/1/pna/USO8_COMB.seq:*

10: /cgn2_6/ptodata/1/pna/USO8_COMB.seq:*

10: / 49582208 1/pna/USO96E_COMB.seq:
1/pna/USO96E_COMB.seq:
1/pna/USO97A_COMB.seq:
1/pna/USO98A_COMB.seq:
1/pna/USO98A_COMB.seq:
1/pna/USO98A_COMB.seq:
1/pna/USO98A_COMB.seq:
1/pna/USO99A_COMB.seq:
1/pna/USO99A_COMB.seq:
1/pna/USO99A_COMB.seq:
1/pna/USO99A_COMB.seq:
1/pna/USO99A_COMB.seq:
1/pna/USO99A_COMB.seq:
1/pna/USO99A_COMB.seq:
1/pna/USO99A_COMB.seq:
1/pna/USO99A_COMB.seq:
1/pna/USO99A_COMB.seq:
1/pna/USO99A_COMB.seq:
1/pna/USO9AA_COMB.seq:
1/pna/USO9AA_COMB.seq:
1/pna/USO0AA_COMB.seq:
1/pna/USO0AA_COMB.seq:
1/pna/USO0AA_COMB.seq:
1/pna/USO0AA_COMB.seq: GenCore version 5.1.6 Copyright (c) 1993 - 2003 Compugen Ltd. 24791104 seqs, 12571243825 residues al number of hits satisfying chosen parameters: Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries nucleic search, using sw model IDENTITY_NUC Gapop 10.0 , Gapext 1.0 /cgn2_6/ptodata/1/ /cgn2_6/ptodata/1/ Minimum DB seq length: 0 Maximum DB seq length: 200000000 June Title: Perfect score: Scoring table: OM nucleic

Cgn2 6/ptodata/1/pna/US6003_COMB.seq:
Cgn2 6/ptodata/1/pna/US6003_COMB.seq:
Cgn2 6/ptodata/1/pna/US6005_COMB.seq:
Cgn2 6/ptodata/1/pna/US6005_COMB.seq:
Cgn2 6/ptodata/1/pna/US6009_COMB.seq:
Cgn2 6/ptodata/1/pna/US6009_COMB.seq:
Cgn2 6/ptodata/1/pna/US6010_COMB.seq:
Cgn2 6/ptodata/1/pna/US6010_COMB.seq:
Cgn2 6/ptodata/1/pna/US6010_COMB.seq:
Cgn2 6/ptodata/1/pna/US6010_COMB.seq:
Cgn2 6/ptodata/1/pna/US6010_COMB.seq:
Cgn2 6/ptodata/1/pna/US6010_COMB.seq:
Cgn2 6/ptodata/1/pna/US6010_COMB.seq:
Cgn2 6/ptodata/1/pna/US6010_COMB.seq:
Cgn2 6/ptodata/1/pna/US6010_COMB.seq:
Cgn2 6/ptodata/1/pna/US6010_COMB.seq:
Cgn2 6/ptodata/1/pna/US6010_COMB.seq:
Cgn2 6/ptodata/1/pna/US6010_COMB.seq:
Cgn2 6/ptodata/1/pna/US6010_COMB.seq:
Cgn2 6/ptodata/1/pna/US6010_COMB.seq:
Cgn2 6/ptodata/1/pna/US6010_COMB.seq:
Cgn2 6/ptodata/1/pna/US6020_COMB.seq:
Cgn2 6/ptodata/1/pna/US6020_COMB.seq:
Cgn2 6/ptodata/1/pna/US6020_COMB.seq:
Cgn2 6/ptodata/1/pna/US6020_COMB.seq:
Cgn2 6/ptodata/1/pna/US6020_COMB.seq:
Cgn2 6/ptodata/1/pna/US6030_COMB.seq:
Cgn2 6/ptodata/1/pna/US6031_COMB.seq:
Cgn2 6/ptodata/1/pna/US6031_COMB.seq:
Cgn2 6/ptodata/1/pna/US6031_COMB.seq:
Cgn2 6/ptodata/1/pna/US6031_COMB.seq:
Cgn2 6/ptodata/1/pna/US6031_COMB.seq:
Cgn2 6/ptodata/1/pna/US6031_COMB.seq:
Cgn2 6/ptodata/1/pna/US6031_COMB.seq:
Cgn2 6/ptodata/1/pna/US6031_COMB.seq:
Cgn2 6/ptodata/1/pna/US6031_COMB.seq:
Cgn2 6/ptodata/1/pna/US6031_COMB.seq:
Cgn2 6/ptodata/1/pna/US6031_COMB.seq:
Cgn2 6/ptodata/1/pna/US6031_COMB.seq:
Cgn2 6/ptodata/1/pna/US6031_COMB.seq:
Cgn2 6/ptodata/1/pna/US6031_COMB.seq:
Cgn2 6/ptodata/1/pna/US6031_COMB.seq:
Cgn2 6/ptodata/1/pna/US6031_COMB.seq:
Cgn2 6/ptodata/1/pna/US6031_COMB.seq:
Cgn2 6/ptodata/1/pna/US6031_COMB.seq:
Cgn2 6/ptodata/1/pna/US60331_COMB.seq:
Cgn2 6/ptodata/1/pna/US60331_COMB.seq:
Cgn2 6/ptodata/1/pna/US60331_COMB.seq:
Cgn2 6/ptodata/1/pna/US60331_COMB.seq:
Cgn2 6/ptodata/1/pna/US60331_COMB.seq:
Cgn2 6/ptodata/1/pna/US60331_COMB.seq:
Cgn2 6/ptodata/1/pna/US60331_COMB.seq:
Cgn2 6/ptodata/1/pna/US60331_COMB.seq:
Cgn2 6/ptodata/1/pna/US6 6/ptodata1/pna/US6003 COMB.seq: 6/ptodata1/pna/US6004 COMB.seq: 6/ptodata1/pna/US6005 COMB.seq: 6/ptodata1/pna/US6005 COMB.seq: 6/ptodata1/pna/US6007 COMB.seq: 6/ptodata1/pna/US6008 COMB.seq: /cgn2_6/ptodata/1/pna/Useuss_coms.sca /cgn2_6/ptodata/1/pna/Use040 /cgn2_6/ptodata/1/pna/Use041_COMB.seq

results predicted by chance to have a . to the score of the result being printed, of the total score distribution. Pred. No. is the number of ree score greater than or equal to and is derived by analysis of

SUMMARIES

Result		Ouery				
No.	Score	Match	Match Length DB	. B	Ω.	Description
-	225	100.0	225	30	US-09-765-231A-58	Sequence 58, Appl
7	225	100.0	225	61	US-60-176-523-58	Sequence 58, Appl
М	225	100.0	320	18	US-09-495-050A-271	
4	225	100.0	320	55	US-60-118-318-159	Seguence 159, App
ហ	214	95.1	1025	61	US-60-172-360-2785	Sequence 2785, Ap
9 U	196	87.1	1097		US-09-649-163-7215	
C 7	196	87.1	1097	25	US-09-652-109-8606	Sequence 8606, Ap
8	183	81.3	860		US-09-698-010-152	Sequence 152, App
σ	172	76.4	1183		US-09-649-163-9422	
10	172	76.4	1183	27	US-09-698-010-11426	
11	45.2	20.1	1664976	-4	PCT-US97-14900A-1	Sequence 1, Appli
12	45.2	20.1	1664976	13	US-08-916-421-1	Sequence 1, Appl:
13	45.2	20.1	1664976	13	US-08-916-421B-1	Sequence 1, Appl
c 14	42.2	18.8	538	81	US-60-377-240-2534	Sequence 2534, Ap
c 15	41.2	18.3	401		US-09-790-482-3984	Seguence 3984, Ap
16	40.8	18.1	397		US-09-553-094-9112	Sequence 9112, Ap
c 17	40	17.8	6809	42	US-10-221-613-173	Sequence 173, App
c 18	39.6	17.6	1443		US-09-577-410-7932	Sequence 7932, Ap
19	39.4	17.5	88098	20	US-09-534-859-279	Sequence 279, App
20	39.4	17.5	88098	31	US-09-803-736-279	Sequence 279, App
2	39.2	17.4	335	31	115-09-821-837-3726	Semience 3726. An

```
1, Appli
138837,
                                                                                                                                                                                                                                           8758, Ap
                                                                                                                                        4676S, A
                                                                                                                             138837,
                        Sequence
Sequence
Sequence
Sequence
                                                                       Sequence
                                                                                                                                                                                                                                             Sequence
                                                                                          Sequence
                                                                                                        Sequence
                                                                                                                 Sequence
                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                  Sequence
                                                                                                                              Sequence
                                                                                                                                        Sequence
                                                                                                                                                     Seguence
                                                                                                                                                              Sequence
                                                                                                                                                                                                 Sequence
                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                      Sequence
               Sequence
                                                                                                                                                                          Sequence
                                                                    17 US-09-925-564-22038
30 US-09-399-932-4986
30 US-09-790-988-1
4 US-09-634-306B-138837
US-09-67-7
US-09-362-510A-50276
US-09-904-013-50276
US-09-698-013-7217
US-60-243-468-429
US-60-243-742-70
US-09-865-413A-51898
US-09-925-564-22038
                                                                                                                                                                                                                      -09-654-617-341043
                                                                                                                                                             -09-702-134-17932
-09-815-264-76784
                                                                                                                                                                                    US-09-997-722-292
US-10-035-832-1544
                                                                                                                                                                                                                                             US-60-145-485-8758
                                                                                                                                                                                    96588
96588
```

ALIGNMENTS

```
Sequence 58, Application US/09765231A
GENERAL INFORMATION:
Sequence 58, Application US/09765231A
GENERAL INFORMATION:
APPLICANT: Phippard, Deborah
APPLICANT: Phippard, Deborah
APPLICANT: Dotson, Stanton
APPLICANT: Ma, Xiao-Ju
TITLE OF INVENTION: Osteoarthritis tissue-derived nucleic acids, polypeptides,
TITLE OF INVENTION: Vectors, and cells
TITLE OF INVENTION: Vectors, and cells
TITLE OF INVENTION: US/09/765,231A
CURRENT APPLICATION NUMBER: 2001-01-18
NUMBER OF SEQ ID NOS: 82
LENGTH: 225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61 ATATIGGITITIACCTICAGAAGAATAITIAGITITCACTCAGGITITITCAAAGCTACGCTG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121 TCCCCCAAAAAACGAAACAAAACAAAAAAACAACCTTTTTAAGAGTTGATGGCTACTCAT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 TGATGGTAAGTTGTTTCAGGCATAAATTTGAAATATAAATTATGAGGCTCCATGATATGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATATTGGTTTTACCTTCAGAAGAATATTTAGTTTTCACTCAGGTTTTTCAAAGCTACGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 TGATGGTAAGTTGTTTCAGGCATAAAATTTGAAATAAATTATGAGGCTCCATGATATGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .<u>,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 225;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%; Score 225; DB 30;
100.0%; Pred. No. 1.6e-38;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTGATCTGCCTCCTCTGCTGAATCAATTAGGAATTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Local Similarity 100.
Matches 225; Conservative
                                                                                                                                                                                                                                                                                                                                                        TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                    09-765-231A-58
JS-09-765-231A-58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
```

RESULT 2 US-60-176-523-58

```
APPLICANT: Roopa, Reddy
APPLICANT: Guegler, Karl, J.
APPLICANT: Guegler, Karl, J.
APPLICANT: Guegler, Karl, J.
APPLICANT: AU-Young, Janice
TITLE OF INVENTION: COMPOSITION FOR DETECTION OF GENES ENCODING MEMBRANE-ASSOCIATED PF
FILE REFERENCE: PA-0013 US
CURRENT APPLICATION NUMBER: US/09/495,050A
CURRENT FILING DATE: 2000-01-31
PRIOR PILING DATE: February 1, 1999
NUMBER OF SEQ ID NOS: 305
SOFTWARE: PERL PROGram
SEQ ID NO 271
LENGTH: 320
                                          APPLICANT: Searle/Monsanto
APPLICANT: Phippard, Deborah
APPLICANT: Phippard, Deborah
APPLICANT: Vasanthakamur, Geetha
APPLICANT: Dotson, Stanton
APPLICANT: Dotson, Stanton
APPLICANT: Ma, Xiao-Jun
TITLE OF INVENTION: Osteoarthritis tissue-derived nucleic acids, polypeptides,
TITLE OF INVENTION: Vectors, and cells
FILE REFERENCE: SO-3221 PR
CURRENT APPLICATION NUMBER: US/60/176,523
CURRENT APPLICATION NUMBER: 2000-01-18
NUMBER OF SEQ ID NOS: 82
SEQ ID NO 58
LENGTH: 225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61 ATATTGGTTTTACCTTCAGAAGAATATTTAGTTTCACTCAGGTTTTTCAAAGCTACGTC 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCCCCCAAAAAACGAAACAAAAAAAAAAAACTTTTTAAGAGTTGATGGCTACTCAT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61 ATATTGGTTTTACCTTCAGAAGAATATTTAGTTTCACTÇAGGTTTTTCAAAGCTACGCTG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61 ATATTGGTTTTACCTTCAGAAGAATATTTAGTTTCACTCAGGTTTTTCAAAGCTACGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 IGATGGTAAGTTGTTTCAGGCATAAATTTGAAATAAATTATGAGGCTCCATGATAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 TGATGGTAAGTTGTTTCAGGCATAAAATTTGAAATAAATTATGAGGCTCCATGATATGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 TGATGGTAAGTTGTTTCAGGCATAAAATTTGAAATTAAAATTATGAGGCTCCATGATATGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 225;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 320;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181 TIGATCIGCCICCICIGCIGAAICAATIAGGAATTITITITIT 225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 TGATGGTAAGTTGTTTCAGGCATAAAATTTGAAATAAATTATGAGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%; Score 225; DB 61;
100.0%; Pred. No. 1.6e-38;
ive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 100.0%; Score 225; DB 18; Best Local Similarity 100.0%; Pred. No. 1.7e-38; Matches 225; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; NAME/KEY: misc feature
; OTHER INFORMATION: Incyte ID No: 4132547CT1
US-09-495-050A-271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 3
8.09-495-050A-271
; Sequence 271, Application US/09495050A
; GENERAL INFORMATION:
Sequence 58, Application US/60176523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 100.
Matches 225; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                               ; TYPE: DNA
; ORGANISM: Homo sapiens
US-60-176-523-58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURE
```

```
120
                                                                                                                                                                                                                                                                                                                                                                  121 TCCCCCAAAAAAAGAAAAAAAAAAAAAAAAACAACCTTTTTAAAGAGTTGGTTACTCA 180
                                                                                                                                                                                                                                                                                                61 ATATTGGTTTTACCTTCAGAAGAATATTTAGTTTCACTCAGGTTTTTCAAAGCTACGTG 120
                                                                                                                                                                                                                                                                                                                                          TCCCCCAAAAACGAAACAAAAC-AAAAAAACAACCTTTTTAAGAGTTGATGGCTACTCA 179
                                                                                                                                                                                                               1 TGATGGTAAGTTGTTTCAGGCATAAATTTGAAATTAAATTATGAGGCTCCATGATATGCT 60
                                                                                                                                                                                                                                                         61 ATATIGGTITIACCTICAGAAGAATATITIAGITITCAGGGTTITICAAAGCTACGCTG
                                                                                                                                                                        1 TGATGGTAAGTTGTTTCAGGCATAAAATTTGAAATAAAATTATGAGGCTCCATGATATGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  19 GGCATAAAATTTGAAATAAAATTATGAGGCTCCATGATATGCTATATTGGTTTTACCTTCA
                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ĥ
                                                                                       Length 1025;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Shyjan Andrew W.
TITLE OF INVENTION: NOVEL NUCLEIC ACID MOLECULES AND USES
TITLE OF INVENTION: NEBREPOR
FILE REFERENCE: 1600.1164-001
CURRENT FILING DATE: 2000-08-25
PRIOR APPLICATION NUMBER: 60/150,608
PRIOR PILING DATE: 1999-08-25
NUMBER OF SEQ ID NOS: 10535
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 7215
LENGTH: 1097
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                              ö
                                                                                     Score 214; DB 61;
Pred. No. 4.6e-36;
0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match

87.1%; Score 196; DB 25;
Best Local Similarity 99.5%; Pred. No. 3.4e-32;
Matches 207; Conservative 0; Mismatches 0;
i NAME/KEY: misc_feature
i OTHER INFORMATION: Incyte ID No: 115406.1
US-60-172-360-2785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Villeval, Jean-Luc M.G. . . Goodearl, Andrew D.J. Silos-Santiago, Inmaculada White, David
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 7215, Application US/09649163 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURE:
NAME/KEY: misc_feature
LOCATION: (1)...(1097)
OTHER INFORMATION: n = A,T,C or G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Holtzman, Douglas A.
Galvin, Katherine A.
Leiby, Kevin R.
Kingsbury, Gillian A.
Weich, Nadine S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pan, Yang
Busfield, Samantha J.
Deeds, James
Lee, John
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MacBeth, Kyle J.
Fraser, Christopher C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Williamson, Mark
Richardson, Jennifer
                                                                                   Query Match
Best Local Similarity 99.6%;
Matches 225; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              McCarthy, Sean
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        JS-09-649-163-7215
                                                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: DNA
                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 2885, Application US/60172360
GENERAL INFORMATION:
APPLICANT: Morris, MacDonald
APPLICANT: Disp, Dinh
APPLICANT: Disp, Dinh
APPLICANT: Disp, Dinh
APPLICANT: Disp, Dinh
TITLE OF INVENTION: Method for the Identification of Sequence Polymorphisms Using
TITLE OF INVENTION: Polynucleotide Sequence Databases, and Single Nucleotide Polymorp
FILE REFERENCE: GX-0007 P
CURRENT APPLICATION NUMBER: US/60/172,360
CURRENT FILING DATE: 1999-12-16
NUMBER OF SEQ ID NOS: 29838
SOFTWARE: PERL PROGram
                                                                                                                                                                                                                                                                                                                                 APPLICANT: Roops, Reddy
APPLICANT: Guegler, Karl, J.
APPLICANT: Guegler, Karl, J.
APPLICANT: Guegler, Karl, J.
APPLICANT: Au-Young, Janice
TITLE OF INVENTION: COMPOSITION FOR DETECTION OF GENES ENCODING MEMBRANE-ASSOCIATED
FILE REPERBNCE: PA-0013 P
CURRENT APPLICATION NUMBER: US/60/118,318
CURRENT FILING DATE: 1999-02-01
NUMBER OF SEQ ID NOS: 306
SOFTWARE: PERL Program
SEQ ID NO 159
LENGTH: 320
                                                                                         ATATTGGTTTTACCTTCAGAAGAATATTTAGTTTCACTCAGGTTTTTCAAAGCTACGCTG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TCCCCCAAAAAACGAAACAAAACAAAAAACCTTTTTAAGAGTTGATGGCTACTCAT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATATTGGTTTTACCTTCAGAAGAATATTTAGTTTCACTCAGGTTTTTCAAAGCTACGCTG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCCCCCAAAAACGAAACAAAAAAAAAAAACAAACTTTTTAAGAGTTGATGCTACTCAT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 TGATGGTAAGTTGTTTCAGGCATAAAATTTGAAATAAATTATGAGGCTCCATGATATGGCT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGATGGTAAGTTGTTTCAGGCATAAATTTGAAATAAATTATGAGGCTCCATGATATGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 100.0%; Score 225; DB 55; Length 320; Best Local Similarity 100.0%; Pred. No. 1.7e-38; Matches 225; Conservative 0; Mismatches 0; Indels 0
                                                                                                                                                                                 ; Sequence 159, Application US/60118318 ; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; OTHER INFORMATION: 4132547CT1
US-60-118-318-159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: DNA ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 5
US-60-172-360-2785
                                                                                                                                                                                                                                                                          US-60-118-318-159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQ ID NO 2785
LENGTH: 1025
                                                                                                                                                181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PEATURE: -
                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                     61
                                                             121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                  셤
                                                                                                                                                                                     유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                             ò
                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
```

```
Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1092 GGCATAAAATTTGAAATAAATTATGAGGCTCCATGATATGCTATATTGGTTTTACCTTCA 1033
1092 GGCATAAAATTTGAAATAAATTATGAGGCTCCATGATATGCTATATTGGTTTTACCTTCA 1033
                                                       79 GAAGAATATTTAGTTTCACTCAGGTTTTTCAAA-GCTACGCTGTCCCCCAAAAAACGAAA 137
                                                                                                                                                             138 CAAAACAAAAAAAACTTTTTAAGAGTTGATGGCTACTCATTTGATCTGCCTCCTCTG 197
                                                                                                                                                                                                                 972 CAAAACAAAAAACAACCTTTTTAAGAGTTGATGGCTACTCATTTGATCTGCCTCCTCTG 913
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              79 GAAGAATATTTAGTTTCACTCAGGTTTTTCAAA-GCTACGCTGTCCCCCAAAAAACGAAA 137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1032 GAAGAATATITAGTITCACTCAGGTITITTCAAAGGCTACGCTGCCCCCAAAAAAAAGAAA 973
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    138 CAAAACAAAAAAACAACCTTTTTAAGAGTTGATGGCTACTCATTTGATCTGCCTCCTCTG 197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         972 CAAAACAAAAAACAACCTTTTTAAGAGTTGATGGCTACTCATTTGATCTGCCTCCTCTG 913
                                                                                                        1032 GAAGAATATTTAGTTTCACTCAGGTTTTTCAAAGGCTACGCTGTCCCCCAAAAAACGAAA 973
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                19 GGCATAAAATTTGAAATAAATTATGAGGCTCCATGATATGCTATATTGGTTTTACCTTCA 78
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ٦;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 1097;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 87.1%; Score 196; DB 25; Length 1 Best Local Similarity 99.5%; Pred. No. 3.4e-32; Matches 207; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Williamson, Mark
APPLICANT: Williamson, Mark
APPLICANT: Shyjan, Andrew W.
TITLE OF INVENTION: NOVEL NUCLEIC ACID MOLECULES AND USES
TITLE OF INVENTION: THEREFOR
FILE REFERENCE: 1600,2029-001
CURRENT APPLICATION NUMBER: US/09/698,010
CURRENT APPLICATION NUMBER: 60/162,358
PRIOR APPLICALION NUMBER: 60/162,358
PRIOR FILING DATE: 1999-10-29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION MACKET, Sean A.
TITLE OF INVENTION: NOVEL NUCLEIC ACID MOLECULES AND USES
TITLE OF INVENTION: THEREFOR
FILE REFERENCE: 1600.1180-001
CURRENT APPLICATION NUMBER: US/09/652,109
CURRENT FILING DATE: 2000-08-30
PRIOR FILING DATE: 1999-08-30
NUMBER OF SEQ ID NOS: 10105
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 6006
                                                                                                                                                                                                                                                                                                    912 CTGAATCAATTAGGAATTTTTTTTTTT 885
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             198 CTGAATCAATTAGGAATTTTTTTTTT 225
                                                                                                                                                                                                                                                                     198 CTGAATCAATTAGGAATTTTTTTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                             ; Sequence 8606, Application US/09652109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; Sequence 152, Application US/09698010 ; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: DNA ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME/KEY: misc_feature
LOCATION: (1)...(1097)
                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-652-109-8606/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 8
US-09-698-010-152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                    ઠે
                                                                                                        윱
                                                                                                                                                             ò
                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
```

```
131 CTTTTGGTTTTACCTTCAGAAGAATATTTAGTTTCACTCAGGTTTTTCAAAG--TCGCTG 188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         189 rcccccaaaaaaccaaacaaaacaaaaaaaaacaaccrrrrraacagrrgarggcracrcar 248
                                                                                                                                                                                                                                                                                                                                                                                                                                                              72 rgarggraagrigiricaggcaraaarrirgaaaraaarraaggcrcc-cargararg 130
                                                                                                                                                                                                                                                                                                                                                                                                               1 TGATGGTAAGTTGTTTCAGGCATAAATTTGAAATAAATTATGAGGCTCCATGATATGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61 ATATTGGTTTTACCTTCAGAAGAATATTTAGTTTCACTCAGGTTTTTCAAAGCTACGCTG
                                                                                                                                                                                                                                                                                                                                                               3; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 1183;
                                                                                                                                                                                                                                                                                                               DB 27; Length 860;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              249 ricarcrecercecercaarcaarragaarrirrirrirrir 293
                                                                                                                                                                                                                                                                                                         Query Match 81.3%; Score 183; DB 27; Length 8 Best Local Similarity 94.2%; Pred. No. 2e-29; . . Matches 212; Conservative 0; Mismatches 10; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Shyjan, Andrew W.
TITLE OF INVENTION: NOVEL NUCLEIC ACID MOLECULES AND USES
TITLE OF INVENTION: THEREFOR
FILE REFERENCE: 1600.1164-001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 172; DB 25;
Pred. No. 4.9e-27;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION NUMBER: US/09/649,163
CURRENT APPLICATION NUMBER: US/09/649,163
CURRENT FILING DATE: 2000-08-25
PRIOR APPLICATION NUMBER: 60/150,608
PRIOR FILING DATE: 1999-08-25
NUMBER OF SEQ ID NOS: 10535
SOFTWARE: FastSEQ for Windows Version 4.0
NUMBER OF SEQ ID NOS: 15684
SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Villeval, Jean-Îuc M.G.
Goodearl, Andrew D.J.
Silos-Santiago, Inmaculada
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 9422, Application US/09649163
GENERAL INFORMATION:
                       SOFTWARE: FastSEQ for Windows Versio; SEQ ID NO 152; LENGTH: 860; TYPE: DNA ORGANISM: Homo sapiens; FARTURE: NAME/KEY: misc_feature; LOCATION: (1)...(860); OTHER INFORMATION: n = A,T,C or G US-09-698-010-152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Christopher C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pan, Yang
Busfield, Samantha J.
Deeds, James
Lee, John
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Kingsbury, Gillian A.
Weich, Nadine S.
McCarthy, Sean A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Williamson, Mark
Richardson, Jennifer
MacBeth, Kyle J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Holtzman, Douglas A.
Galvin, Katherine A.
Leiby, Kevin R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         76.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               White, David
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      , TYPE: DNA
, ORGANISM: Homo sapiens
US-09-649-163-9422
```

```
셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         75 TGATGGTAAGTTGTTTCAGGCATAAAATTTGAAACATAAATTATGAGGGGCTCCAATGAT 134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   135 ATGCTATATTGGTTTTACCCCTTCAGAAGAAATATTTAGTTTCACTCAGGTTTTTCAAA 194
                                                                  56 ATGCTATATTGGTTTTACCTTCAGA----AGAATATTTAGTTTCACTCAGGTTTTCAAA 111
                                                                                                                                                          135 ATGCTATATTGGTTTTACCCCTTCAGAAGAAAATATTTTAGTTTCACTCAGGTTTTTCAAA 194
                                                                                                                                                                                                  195 GCTACGCTGTCCCCCAAAAAACGAACAAAAAAAAAAACAACCTTTTAAGACTTGATG 254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              56 ATGCTATATTGGTTTTACCTTCAGA----AGAATATTTAGTTTCACTCAGGTTTTCAAA 111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCTACGCTGTCCCCCAAAAACGAAACAAAACAAAAACAACCTTTTTAAGAGTTGATG 171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCAGGCATAAAATTTGAAATAA----ATTATGAGGCTCCATGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 TGATGGTAAGTTGTTTCAGGCATAAAATTTGAAATAA----ATTATGAGGCTCCATGAT
    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gарв
                                                                                                                                                                                                                                                                                                         ٠<u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; DB 27; Length 1183; 4.9e-27;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Shyjan, Andrew W.
TITLE OF INVENTION: NOVEL NUCLEIC ACID MOLECULES AND USES
TITLE OF INVENTION: NOVEL NUCLEIC ACID MOLECULES AND USES;
TITLE OF INVENTION: THEREFOR
FILE REFERENCE: 1600.2029-001
CURRENT PILING DATE: 2000-10-27
PRIOR PILING DATE: 1999-10-29
NUMBER OF SEQ ID NOS: 15684
SOFTWARE: FREISEQ for Windows Version 4.0
$ SQ ID NO 11426
LENGTH: 1183
  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             15; Indels
                                                                                                                                                                                                                                                                              172 GCTACTCATTTGATCTGCCTCCTCTGCTGAATCAATTAGGAATTTT
  15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        THE INSTITUTE FOR GENOMIC RESEARCH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pred. No. 4.9e
0, Mismatches
  0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     76.4%; Score 172;
89.7%; Pred. No. 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9712 MEDICAL CENTER DRIVE
ROCKTILE, MD 20850
UNITED STATES OF AMERICA
MICROBIOLOGY DEPARTMENT
CHAMPAIGN-URBANN, IL 61801
UNITED STATES OF AMERICA
SCHOOL OF MEDICINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 1, Application PC/TUS9714900A
GENERAL INFORMATION:
APPLICANT: THE INSTITUTE FOR GENOMIC INTERMATION:
APPLICANT: 9712 MEDICAL CENTER DRIVE APPLICANT: NOCKVILLE, MD 20850
APPLICANT: NITRED STATES OF AMERICA APPLICANT: CHAMPAIGN-URBANA, IL 61801 APPLICANT: CHAMPAIGN-URBANA, IL 61801 APPLICANT: SCHOOL OF MEDICINE
                                                                                                                                                                                                                                                                                                                                                                                                                Requence 11426, Application US/09698010 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Williamson, Mark
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Local Similarity 89.7
Matches 210; Conservative
  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ; TYPE: DNA
; ORGANISM: Homo sapiens
US-09-698-010-11426
                                                                                                                                                                                                                                                                                                                                                                                                 09-698-010-11426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PCT-US97-14900A-1
210;
                                                                                                                                                                                                  112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Matches
                                                                                                                                                      8
                                                                                                                                                                                                                                유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                      g
                                                                                                                   ò
                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                               ò
```

```
151463 TCTTTATCAATAGCCTCTTCTAAAATCTTCTCGTAAATTTTTAAAACTCCGGAGTTGTCT 151522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  151403 TAAATCTCTGCAGCCCTTCTATTTCCATCATTATTATAGCTACATGTTTTGGTAAATTG 151462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 127 AAAAAACGAAACAAAAAAAAAAAACTTTTTAAGAGTTGATGGCTACTCATTTGATC 186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         67 GITITACCITCAGAAGAATATITAGITITCACTCAGGITITITCAAAGCIACGCIGICCCCC 126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99
                        APPLICANT: UNIL.
APPLICANT: APPLICANTS/LNT.
APPLICANT: White, Owen R.
APPLICANT: White, Owen R.
APPLICANT: White, Owen R.
APPLICANT: Wosee, Carl R.
APPLICANT: Venter, J. Craig
TITLE OF INVENTION: Complete Genome Sequence of the Methanogenic
TITLE OF INVENTION: Archaeon, Methanococcus jannaschii
NUMBER OF SEQUENCES: 3
CORRESPONDENCE ADDRESS:
ADDRESSEE: STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
STREET: 1100 New York Avenue, NW, Suite 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  7 TAAGTIGITICAGGCATAAAATTIGAAATAAAATTATGAGGCTCCATGATATGCTATATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 45.2; DB 1; Length 1664976;
Pred. No. 24;
0; Mismatches 103; Indels 0;
DEPARTMENT OF MOLECULAR BIOLOGY AND GENETICS BALLTIMORE, MD 21205
BALTTIMORE, MD 21205
ANTIED STATES OF AMERICA APPLICANTS/INVENTORS: Bult, Carol J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             OPERATING SYSTEM: PC-DOS/WS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US97/14900A
FILING DATE: 22-AUG-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         151583 TTACCCAAAATCCCCACCTATTAGGAATTT 151612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     187 TGCCTCCTCTGCTGAATCAATTAGGAATTT 216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/024,428
FILING DATE: 22-AUG-1996
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                     COUNTRY: USA
ZIP: 20005-1934
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 1, Application US/08916421
GENERAL INFORMATION:
APPLICANT: Bult, Carol J.
APPLICANT: White, Owen R.
APPLICANT: Smith, Hamilton O.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME: Eric K. Steffe
REGISTRATION NUMBER: 36,688
REFERENCE/DOCKET NUMBER: 141
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEPHONE: (202) 371-2600
TELERAX: (202) 371-2540
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
LENGTH: 1664976 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20.1%;
51.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Local Similarity 51.0
Matches 107; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: nucleic acid
STRANDEDNESS: double
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CLASSIFICATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PCT-US97-14900A-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-08-916-421-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 12
```

```
or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ör
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           or
                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                   or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            or
                                                                                                                                                                                                                                                                                                                                        or
                                                                       TYPE: DNA ORGANISM: Methanococcus jannaschii
                                                                                                       CACATION: (2822). (2822)
COATION: (2822). (2822)
OTHER INFORMATION: n equals a, t
NAME/KEY: misc_feature
', NAME/KEY: misc_feature
', NATION: (28257). (28258)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LOCATION: (98343)...(98343)
OTHER INFORMATION: n equals a, t
NAME/KEY: misc_feature
LOCATION: (103998)...(103998)
OTHER INFORMATION: n equals a, t
NAME/KEY: misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LOCATION: (234187)
OTHER INFORMATION: n equals a, t
NAME/KEY: misc_feature
COCATION: (234220)..(234220)
OTHER INFORMATION: n equals a, t
NAME/KEY: misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME/KEY: misc feature
LOCATION: (312837)..(312837)
OTHER INFORMATION: n equals a,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME/KEY: misc feature
LOCATION: (309418)..(309418)
OTHER INFORMATION: n equals a,
                                                                                                                                                                                                                                                                                                                                                                             LOCATION: (84808)...(84808)
OTHER INFORMATION: n equals a,
NAME/KEY: misc feature
LOCATION: (84812)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LOCATION: (98120)..(98120)
OTHER INFORMATION: n equals a,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COCATION: (148948)...(148948)

THER INFORMATION: n equals a, NAME/KFX: misc feature

COCATION: (163385)...(163385)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCATION: (234814)..(234814)
THER INFORMATION: n equals a,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OCATION: (98159)..(98159)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME/KEY: misc feature
LOCATION: (191989) .(191989)
OTHER INFORMATION: n equals a,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME/KEY: misc feature
LOCATION: (191995)..(191995)
OTHER INFORMATION: n equals a,
                                                                                                                                                                                                                                                                                    NAME/KEY: misc feature
LOCATION: (84773)..(84773)
OTHER INFORMATION: n equals a,
                                                                                                                                                                                                                                                                                                                                                                                                                                                       LOCATION: (84812)..(84812)
OTHER INFORMATION: n equals a,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             INFORMATION: n equals a,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            OCATION: (98266)..(98266)
THER INFORMATION: n equals a,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME/KEY: misc_feature
LOCATION: (231980)..(231980)
THER INFORMATION: n equals a,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              INFORMATION: n equals a,
SOFTWARE: Patentin version 3.1 SEQ ID NO 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME/KEY: misc feature
LOCATION: (98239)..(98239)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME/KEY: misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME/KEY: misc feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 1, Application US/08916421B
GENERAL INFORMATION:
APPLICANT: Bult et al.
TITLE OF INVENTION: Complete Genome Sequence of the Methanogenic Archaeon, Methanococ TITLE OF INVENTION: jannaschii
FILE REFERENCE: P275
CURRENT APPLICATION NUMBER: US/08/916,421B
CURRENT PILING DATE: 1997-08-22
PRIOR FILING DATE: 1996-08-22
NUMBER OF SEQ ID NOS: 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         151523 AAAAATCTATAAAAATCAATTATTACTCTTTTTCCAATACTCTTTAATTTGTTTTTATC 151582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                151403 TAAATCTCTGCAGCCCTTCTATTTCCATCCATTATTATAGCTACATGTTTTGGTAAATTG 151462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            151463 TCTTTATCAATAGCCTCTTCTAAAATCTTCTCGTAAATTTTTTAAAACTCCGGAGTTGTCT 151522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               67 GITTIACCTICAGAAGAATATITAGTITCACTCAGGITTITICAAAGCTACGCTGTCCCCC 126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           127 AAAAAACGAAACAAAAAAAAAAAACCTTTTTTAAGAGTTGATGGCTACTCATTTGATC 186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    7 TAAGTTGTTTCAGGCATAAAATTTGAAATAAATTATGAGGCTCCATGATATGCTATATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                   APPLICANT: Venter, J. Craig
TITLE OF INVENTION: Complete Genome Sequence of the Methanogenic
TITLE OF INVENTION: Archaeon, Methanococcus jannaschii
NUMBER OF SEQUENCES: ACCRESPONDENCE ADDRESS:
ADDRESSEE: STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
STREET: ALION New York Avenue, NW, Suite 600
CITY: MASHINGTON
STATE: DC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 1664976;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 20.1%; Score 45.2; DB 13; Length Best Local Similarity 51.0%; Pred. No. 24; Matches 107; Conservative 0; Mismatches 103; Indels
                                                                                                                                                                                                                                                                                                                                                                           SOFTWALE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/916,421
FILING DATE: 22-AUG-1997
CLASSIFICATION: 530
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 60/024,428
FILING DATE: 22-AUG-1996
ATTORNEY/AGENT INFORMATION:
NAME: Eric K. Steffe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    187 TGCCTCCTCTGCTGAATCAATTAGGAATTT 216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE/DOCKET NUMBER: 1488.0290001
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                             MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REGISTRATION NUMBER: 36,688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEPHONE: (202) 371-2600
TELEPAX: (202) 371-2540
INFORMATION FOR SEQ 1D NO: 1:
SEQUENCE CHARACTERISTICS:
LENGTH: 1664976 base pairs
                                                                                                                                                                                                                                   COUNTRY: USA
ZIP: 20005-3934
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: nucleic acid
STRANDEDNESS: double
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 13
US-08-916-421B-1
  APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-08-916-421-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
```

																•									
b	מ	b	ξŋ	50	b	ξ.		1 01	ו ס	מ	_D	b		ກ	מ	מ	Ü	ו ס	ם ה	b	D	b	מ	מ	
or	or	o r	or	ŏ	or	o r	o r		or	or	or	'n	. :	5	or	o r	ь Б		o	ä	or	or	or	ğ	
ນີ	ů	ů		ů			_							:		~							_	-	
٠	٠	,	Ü		Ö	o	o.	Ü	Ü	0	Ü		. '		Ü	Ü	Ü		·	Ü	Ü	Ö	Ö	Ü	
ىر.	ħ	ט	ц	n	ħ	ħ	ħ	ħ	ų	ħ	ħ	'n		د	ħ	ħ	n	ע	ħ	ט	ħ	ħ	ħ	ħ	
, κ	, a,	, e	, a	, a	, e	ď	, ,	, a	, a	, 'n	, e	_ e	` _ '	Ď,	ซ่	ູ່ຜ່	30)	, 46 (a,	81) a,	81) a,	88) a,	24) a,	73) a,		91)
TION: (31	/KEY: misc feature TION: (319226)(3 R INFORMATION: n e	KEY: misc featur ION: (559167)(INFORMATION: n	SY: misc teatur ON: (559241)(INFORMATION: n	ION: (600992) . (INFORMATION: n	TION: (622708)(/KEY: misc f TION: (65708 R INFORMATIO	: misc_feature : (657203)(6 FORMATION: n e	KEY: misc_feature_ ION: (674435)(674 INFORMATION: n equ	<pre>KEY: misc feature ION: (682442)(6 INFORMATION: n e</pre>	KEY: misc_feature ION: (713652)(7 INFORMATION: n e	KEY: misc_feature ION: (741684)(7 INFORMATION: n e	featur 9455)(FION: n	ION: (779676)(779	INFORMATION: 11 equal SY: misc feature ON: (855539) (85553	INFORMATION: n equal	(871619)(KEY: misc feature ION: (1096846)(1096 INFORMATION: n equal	3Y: misc_feature DN: (1119881)(11198 INFORMATION: n equals	/KEY: misc_feature TION: (1130881)(11308 RINFORMATION: n equals	misc_reature (1310988)(13109 ORMATION: n equals	TION: (1313224)	TION: (1349473). R INFORMATION: n	TION: (1349491)(13494 RINFORMATION: n equals /KEY: misc feature	TION: (1470091)(14700
											·- ·- ·-		· · · ·		٠	- ;									••

151403 TAAATCTCTGCAGCCCTTCTATTTCCATCATTATACCTACATGTTTTGGTAAATTG 151462 151463 TCTTTATCAATAGCCTCTTCTAAAATCTTCTCGTAAATTTTTAAAACTCCGGAGTTGTCT 151522 151523 AAAAATCTATAAAAATCAATTATTACTCTTTTCCAATACTCTTTAATTTGTTTTTTATC 151582 APPLICANT: Diggans, James C.
APPLICANT: Diggans, James C.
APPLICANT: Porter, Mark
APPLICANT: Wei, Tao
TITLE OF INVENTION: Canine Gene Microarrays for Molecular Toxicology Modeling
FILE REPERENCE: 44921-5116-PR
CURRENT APPLICATION NUMBER: US/60/377,240
FRICR APPLICATION NUMBER:
PRIOR FILLING DATE: ö ö 148 67 GITTIACCTICAGAAGAATAITITAGITICACTCAGGITTITICAAAGCTACGCTGTCCCCC 126 477 CAATAATACATAGGTTTTTCAAAATTAGGTTTCAATAAAGAATACAGAAAAGGAAAAT 418 537 TTGACATACATTTTGATGTATGTTAGGCTATACAGAATGTACAAACCAAAGCTGTAT 478 99 7 TAAGTTGTTTCAGGCATAAATTTGAAATAAATTATGAGGCTCCATGATATGCTATATTG 127 AAAAAACGAAACAAAAAAAAAAACTTTTTAAGAGTTGATGGCTACTCTTTGATC 29 TIGAAATAAATTATGAGGCTCCATGATATGCTATATTGGTTTTACCTTCAGAAGAATATT 0; Gaps 0; Gaps Length 1664976; Length 538; Score 45.2; DB 13; Length Pred. No. 24; 0; Mismatches 103; Indels Indels Score 42.2; DB 81; Pred. No. 33; 0; Mismatches 68; NAME/KEY: misc_feature
LOCATION: (1569020). (1569020)
OTHER INFORMATION: n equals a, t, c, or g
NAME/KEY: misc_feature
LOCATION: (1602912)
OTHER INFORMATION: n equals a, t, c, or g
NAME/KEY: misc_feature
LOCATION: (1603734). (1603734)
OTHER INFORMATION: n equals a, t, c, or g
NAME/KEY: misc_feature
LOCATION: (1637998). (1637998)
OTHER INFORMATION: n equals a, t, c, or g
NAME/KEY: misc_feature
LOCATION: (1637998). (1637998)
OTHER INFORMATION: n equals a, t, c, or g
NAME/KEY: misc_feature
LOCATION: (1664855)
OTHER INFORMATION: n equals a, t, c, or g 187 TGCCTCCTCTGCTGAATCAATTAGGAATTT 216 ρ or ú Sequence 2534, Application US/60377240 GENERAL INFORMATION: ú INFORMATION: n equals a, Query Match 20.1%; Best Local Similarity 51.0%; Matches 107; Conservative Query Match
Best Local Similarity 55.0%;
Matches 83; Conservative (NUMBER OF SEQ ID NOS: 11109 SOFTWARE: PatentIn Ver. 2.1 SEQ ID NO 2534 LENGTH: 538 ORGANISM: Canis familiaris OTHER INFORMATION: US-60-377-240-2534 RESULT 14 US-60-377-240-2534/c US-08-916-421B-1 TYPE: DNA FEATURE: 요 ò g ે ದ್ದ ò ò g ò Op ઠ

```
83 AATATTTAGTTTCACTCAGGTTTTTCAAAGCTACGCTGTCCCCCAAAAAACGAAACAAAA 142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             154 TAAANTGTCGAANTCCCTACNTGACAACATTATAACTGTATGGGAGCTTAACTTTATAAG 95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  23 TAAAATTIGAAATAAATTATGAGGCTCCATGATATGCTATATTGGTTTTACCTTCAGAAG 82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ouery Match 18.3%; Score 41.2; DB 30; Length 401; Best Local Similarity 55.5%; Pred. No. 51; Matches 76; Conservative 0; Mismatches 61; Indels 0;
                                                                                                                                                  Sequence 3984, Application US/09790482
; GENERAL INFORMATION:
; APPLICANT: Shyjan, Andrew W.
; TITLE OF INVENTION: THEREFOR
; FILE REFERENCE: 1600.2063.001
; CURRENT APPLICATION NUMBER: US/09/790,482
CURRENT FILING DATE: 2001-02-22
; PRIOR FILING DATE: 2001-02-22
; PRIOR FILING DATE: 2000-02-22
NUMBER OF SEQ ID NOS: 4377
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 3984
                                   417 AACCACACATCCAACACTCAGAACTTCTAA 387
149 AACAACCTTTTTAAGAGTTGATGGCTACTCA 179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURE:

NAME/KEY: misc_feature

LOCATION: (1) ... (401)

OTHER INFORMATION: n = A,T,C or G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                RESULT 15
US-09-790-482-3984/c
                                      qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
  ઠે
```

earch completed: June 9, 2003, 09:40:39 b time : 1969 secs

ઠે

```
Sequence 271, App Sequence 271, App Sequence 174, App Sequence 2534, Ap Sequence 2813, Ap Sequence 271, App Sequence 271, App Sequence 51, App Sequence 1136, Ap Sequence 1260, A Sequence 1560, A Sequence 1560, A Sequence 26, App Sequence 26, App Sequence 26, App Sequence 26, App Sequence 3136, Ap Sequence 1560, A Sequence 26, App Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequence 31394, A Sequ
                                                                                                                                                                                                            9, 2003, 08:36:51 ; Search time 2538 Seconds (without alignments) 578.414 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                     225
1 tgatggtaagttgtttcagg.....attaggaattttttttt 225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pending Patents_NA New:*

1: /cgn2_6/ptodata/1/pna/PCT_NEW_COMB.seq:*

2: /cgn2_6/ptodata/1/pna/USO6_NEW_COMB.seq:*

3: /cgn2_6/ptodata/1/pna/USO8_NEW_COMB.seq:*

4: /cgn2_6/ptodata/1/pna/USO8_NEW_COMB.seq:*

5: /cgn2_6/ptodata/1/pna/USO9_NEW_COMB.seq:*

7: /cgn2_6/ptodata/1/pna/USO9_NEW_COMB.seq:*

8: /cgn2_6/ptodata/1/pna/USO9_NEW_COMB.seq:*

9: /cgn2_6/ptodata/1/pna/USO9_NEW_COMB.seq:*

10: /cgn2_6/ptodata/1/pna/USO0_NEW_COMB.seq:*

10: /cgn2_6/ptodata/1/pna/USO0_NEW_COMB.seq:*

10: /cgn2_6/ptodata/1/pna/USO0_NEW_COMB.seq:*

11: /cgn2_6/ptodata/1/pna/USO0_NEW_COMB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 15156240
GenCore version 5.1.6
Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9 US-10-313-542-271

10 US-10-313-542A-71

11 PCT-US03-13853-2534

12 US-00-40-66-8943

13 US-00-410-66-8943

14 US-60-410-66-8943

15 US-10-240-453-180

16 US-60-466-412-86559

17 US-60-466-412-86559

18 US-10-457-741-9

10 US-60-466-412-84536

10 US-60-466-412-84536

10 US-60-466-412-84536

10 US-60-466-412-84536

10 US-60-466-412-84536

10 US-60-466-412-84536

10 US-60-466-412-84536

10 US-60-466-412-84536

10 US-60-466-412-84536

11 US-60-466-412-84536

12 US-10-311-455-118-55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  al number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    7578120 seqs, 3262256734 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                  - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IDENTITY_NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                      US-09-765-231A-58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query
Match Length DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        15105345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1664976
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              109025
2468502
2865598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        343317
                                                                                                                                                                                                                           June
                                                                                                                                                                                                                                                                                                                                                                  Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Scoring table:
                                                                                                                                              OM nucleic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Database:
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Seguence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Searched:
                                                                                                                                                                                                                    Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Bult
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
```

Sequence 297, App		Sequence 17165, A	Sequence 16549, A	12598,	Sequence 53179, A	Sequence 87261, A	Sequence 17539, A	Sequence 63, Appl	Sequence 429, App	Sequence 205123,	Sequence 12692, A	Sequence 152, App	Sequence 2112, Ap	•	Seguence 51766, A	Sequence 86709, A	Seguence 55, Appl	Sequence 259, App	Sequence 1243, Ap	Sequence 3375, Ap	Sequence 8744, Ap	Sequence 54, Appl
US-60-469-757-297	US-60-440-068-297	US-09-949-016-17165	US-09-949-016-16549	US-09-949-016-12598	US-60-465-241-53179	US-60-466-412-87261	US-09-949-016-17539	US-09-947-911-63	US-09-948-128-429	US-09-949-016-205123	US-09-950-083B-12692	US-10-257-166-152	US-10-311-455-2112	US-60-466-412-86424	US-60-465-241-51766	US-60-466-412-86709	US-09-947-911-55	US-09-948-128-259	US-10-311-455-1243	US-60-461-762-3375	US-60-470-166-8744	US-09-948-128-54
10	1	^	7	7	10	10	7	~	ß			σ,		10	9	10	7	ហ	σ	10	10	ស
2586	2586	33519	47555	49673	60583	60583	218940	2111522	5506356	601	1855	7924	7924	29133	115823	196099	495619	4925599	5474	135886	135886	176722
9.	9.	9.		٦.	.5	'n.	16.5	.5	4.	4.	.7	.2	.2		~		.5		.1		7.5	.1
ř	ř	ä	ĭ	7	7	1	16	16	ĭ	ř	ĭ	1	16	1,6	ĭ	7	16	ï	16	16	16	7
37.4	37.4	37.4	37.2	37.2	37.2	37.2	37.2	37.2	37	36.8	36.4	36.4	36.4	36.4	36.4	36.4	36.4	36.4	36.2	36.2	36.2	36.2
23	24	25	56	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
	υ								U	υ		U	υ	υ				Ü	Ü			

ALIGNMENTS

```
APPLICANT: Roopa, Reddy
APPLICANT: Guegler, Karl, J.
APPLICANT: Guegler, Karl, J.
APPLICANT: Guegler, Karl, J.
APPLICANT: Guegler, Karl, J.
APPLICANT: Guegler, Karl, J.
APPLICANT: Guegler, Manie, J.
TITLE OF INNENTION: COMPOSITION FOR DETECTION OF GENES ENCODING MEMBRANE-ASSOCIATED PF
FILE REFERENCE: PA-0013 US
CURRENT APPLICATION NUMBER: US/10/1313,542
CURRENT FILING DATE: 2002-12-05
PRIOR APPLICATION NUMBER: US/09/495,050
PRIOR APPLICATION NUMBER: 60/118,318
PRIOR PILING DATE: 1999-02-01
NUMBER OF SEQ ID NOS: 305
SOFTWARE: PERL PROGRAM
SEQ ID NO 271
LENGTH: 220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61 ATATTGGTTTTACCTTCAGAAGAATATTTAGTTTCACTCAGGTTTTTCAAAGCTACGCTG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 TGATGGTAAGTTGTTTCAGGCATAAAATTTGAAATTAAAATTATGAGGCTCCATGATATGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61 ATATIGGITITACCTICAGAAGAATATITAGITITCACTCAGGITITITCAAAGCTACGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCCCCCAAAAAACGAAACAAAACAAAAAAAAACAACCTTTTTAAGAGTTGATGGCTACTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 320;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
100.0%; Score 225; DB 9;
Best Local Similarity 100.0%; Pred. No. 2.4e-42;
Matches 225; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ) NAME/KEY: misc feature
; OTHER INFORMATION: Incyte ID No: 4132547CT1
US-10-313-542-271
Sequence 271, Application US/10313542 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: DNA ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
```

ö

9 9 120

180

225

181 rigarciecercereregarcaarraggaarrirrirrir

US-09-724-676-31394 US-09-724-676A-31394 US-10-170-235-7647

```
NAME/KEY: misc feature
LOCATION: (234814)..(234814)
OTHER INFORMATION: n equals a, t, c, or
                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME/KEY: misc feature
LOCATION: (98159)..(98159)
OTHER INFORMATION: n equals a,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME/KEY: misc_feature
LOCATION: (148948)..(148948)
OTHER INFORMATION: n equals a,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME/KEY: misc feature
LOCATION: (191989)..(191989)
DTHER INFORMATION: n equals a,
                                                                                                                                                                                                                                                                                      NAME/KEY: misc feature
LOCATION: (84808)..(84808)
OTHER INFORMATION: n equals a,
                                                                                                                                                                                                                                                                                                                                                                                                  NAME/KEY: misc feature
LOCATION: (84812)..(84812)
OTHER INFORMATION: n equals a,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURE:
NAME/KEY: misc feature
LOCATION: (98120) . (98120)
OTHER INFORMATION: n equals a,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME/KEY: misc feature
LOCATION: (103998)..(103998)
OTHER INFORMATION: n equals a,
                                                                                                                                      FEATURE:
NAME/KEY: misc feature
LOCATION: (84773) .. (84773)
OTHER INFORMATION: n equals a,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME/KEY: misc feature
LOCATION: (98239)..(98239)
OTHER INFORMATION: n equals a,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME/KEY: misc feature
LOCATION: (98266)..(98266)
OTHER INFORMATION: n equals a,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME/KEY: misc feature
LOCATION: (98343)..(98343)
JTHER INFORMATION: n equals a,
OTHER INFORMATION: n equals a,
                             FEATURE:
NAME/KEY: misc feature
LOCATION: (28257)..(28258)
OTHER INFORMATION: n equals a,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME/KEY: misc_feature
LOCATION: (163385)..(163385)
OTHER INFORMATION: n equals
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME/KEY: misc feature
LOCATION: (191995)..(191995)
OTHER INFORMATION: n equals
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME/KEY: misc_feature
LOCATION: (234220)..(234220)
OTHER INFORMATION: n equals
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME/KEY: misc feature
LOCATION: (231980)..(231980)
OTHER INFORMATION: n equals
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME/KEY: misc_feature
LOCATION: (234187)..(234187)
OTHER INFORMATION: n equals
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 1, Application US/09692570

Sequence 1, Application US/09692570

GENERAL INFORMATION:

APPLICANT: Bult et al.

APPLICANT: Bult et al.

TITLE OF INVENTION: Januaschii

FILE REFERENCE: PB275C1

CURRENT APPLICATION NUMBER: US/09/692,570

CURRENT APPLICATION NUMBER: US 60/024,428

PRIOR FILING DATE: 1996-08-22

PRIOR APPLICATION NUMBER: US 08/916,421

PRIOR FILING DATE: 1997-08-22

NUMBER OF SEQ ID NOS: 20

SOFTWARE: Patentin version 3.1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1

SEQ ID NO 1
                                                                                                                                                        APPLICANT: Roops, Reddy M.
APPLICANT: Roops, Reddy M.
APPLICANT: Guegler, Karl, J.
APPLICANT: Guegler, Karl, J.
APPLICANT: Al-Young, Janice K.
TITLE OF INVENTION: COMPOSITION FOR DETECTION OF GENES ENCODING MEMBRANE-ASSOCIATED TITLE OF INVENTION: PROTEINS
FILE REFERENCE: PA-0013-1 CON
CURRENT APPLICATION NUMBER: US/10/313,542A
CURRENT APPLICATION NUMBER: 09/495,050
PRIOR FILING DATE: 2000-01-31
PRIOR FILING DATE: 1999-02-01
NUMBER OF SEQ ID NOS: 305
SOFTWARE: PERL PROGRAM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61 ATATTGGTTTTACCTTCAGAAGAATATTTAGTTTCACTCAGGTTTTTCAAAGCTACGCTG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 TGATGGTAAGTTGTTTCAGGCATAAAATTTGAAATAAATTATGGGGCTCCATGATGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 TGATGGTAAGTTGTTTCAGGCATAAAATTTGAAATAAATTATGAGGCTCCATGATATGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 320;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100.0%; Score 225; DB 9; 100.0%; Pred. No. 2.4e-42;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; NAME/KEY: misc feature
; OTHER INFORMATION: Incyte ID No: 4132547CT1
US-10-313-542A-271
                                                                                                                 Sequence 271, Application US/10313542A GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: DNA
TYPE: DNA
ORGANISM: Methanococcus jannaschii
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 100.0
Matches 225; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURE:
NAME/KEY: misc_feature
LOCATION: (28222)..(28222)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: DNA
ORGANISM: Homo sapiens
                                                                                         JS-10-313-542A-271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQ ID NO 271
LENGTH: 320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 3
US-09-692-570-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
```

셤

유 ò

ò

| SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR | SECURIOR 151403 TAAATCTCTGCAGCCCTTCTATTTCCATCATTATTATAGCTACATGTTTTGGTAAATTG 151462 151523 AAAAATCTATAAAAATCAATTATTACTCTTTTCCAATACTCTTTAATTTGTTTTTTATC 151582 ô 67 GTTTTACCTTCAGAAGAATATTTAGTTTCACTCAGGTTTTTCAAAGCTACGCTGTCCCCC 126 127 AAAAAACGAAACAAAACAAAAAAAACAACCTTTTTAAGAGTTGATGGCTACTCATTTGATC 186 99 7 TAAGTTGTTTCAGGCATAAATTTGAAATTAAATTATGAGGCTCCATGATATGG 0; Gaps Length 1664976; 0; Mismatches 103; Indels Query Match 20.1%; Score 45.2; DB 6; Best Local Similarity 51.0%; Pred. No. 0.35; Matches 107; Conservative 0; Mismatches 103; 187 TGCCTCCTCTGCTGAATCAATTAGGAATTT ö ä ö ö ö ö ö ö ϋ NAME/KEY: misc_feature LOCATION: (1096846)..(1096846) OTHER INFORMATION: n equals a, t, ú NAME/KEY: misc feature LOCATION: (1349473)..(1349473) OTHER INFORMATION: n equals a, NAME/KEY: misc_feature LOCATION: (1313224)..(1313224) OTHER INFORMATION: n equals a, NAME/KEY: misc_feature LOCATION: (1119881)..(1119881) OTHER INFORMATION: n equals a, NAME/KEY: misc feature LOCATION: (1130881)..(1130881) OTHER INFORMATION: n equals a, NAME/KEY: misc feature LOCATION: (1310988)..(1310988) OTHER INFORMATION: n equals a, NAME/KEY: misc feature LOCATION: (1084830):.(1084830) OTHER INFORMATION: n equals a, NAME/KEY: misc feature LOCATION: (871619)..(871619) OTHER INFORMATION: n equals NAME/KEY: misc_feature PCT-US03-13853-2534/c TYPE: DNA FEATURE: FEATURE: ઠે g g ઠે 유 ð ઠ

g

a

ठे

```
by Means of Assessing the Methylation Status of Genes Associated With DNA TRanscription
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: BEGOVICH, Ann TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH TITLE OF INVENTION: RHEUMATOID ARTHRITIS, METHODS OF DETECTION AND USES THEREOF FILE REPRENCE: CLOO1468 US/60/465,241 CURRENT APPLICATION NUMBER: US/60/465,241 CURRENT FILING DATE: 2003-04-23 NUMBER OF SEQ ID NOS: 258418 SEQ ID NO 52707 ENGLOSE OF MINDOWS VERSION 4.0 LENGTH: 31312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1028 Tractraatraarakoraarararakorricaacrictraaaacraaracrictraa 3969
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             67 GITTIACCITCAGAAGAATATTTAGITTCACTCAGGITTTTCAAAGCIACGCTGTCCCCC 126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        7 TAAGTTGTTTCAGGCATAAAATTTGAAATTAATTATGAGGCTCCATGATATGCTATATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            , OTHER INFORMATION: chemically treated genomic DNA (Homo sapiens) US-10-240-453-180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 31312;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
Diagnosis of Diseases Associated with DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 18.2%; Score 41; DB 9; Length 5518; Best Local Similarity 51.4%; Pred. No. 3.6; Matches 95; Conservative 0; Mismatches 90; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 39.6; DB 10;
Pred. No. 7.3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  49;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Mismatches
                       TITLE OF INVENTION: Transcription
TITLE OF INVENTION: Dy Means of Assessing th
TITLE OF INVENTION: by Means of Assessing th
TITLE OF INVENTION: With DNA TRANSCRIPTION
CURRENT APPLICATION NUMBER: US/10/240,453
CURRENT FILING DATE: 2002-10-02
PRIOR PILING DATE: 2000-04-06
PRIOR PILING DATE: 2000-04-06
PRIOR PILING DATE: 2000-04-06
PRIOR PILING DATE: 2000-04-07
PRIOR PILING DATE: 2000-04-07
PRIOR PILING DATE: 2000-04-07
PRIOR PILING DATE: 2000-04-07
PRIOR PILING DATE: 2000-04-07
PRIOR PILING DATE: 2000-06-30
PRIOR PILING DATE: 2000-06-30
PRIOR PILING DATE: 2000-06-30
PRIOR PILING DATE: 2000-06-30
PRIOR PILING DATE: 2000-06-30
PRIOR PILING DATE: 2000-06-30
PRIOR PILING DATE: 2000-06-30
PRIOR PILING DATE: 2000-06-30
PRIOR PILING DATE: 2000-06-30
PRIOR PILING DATE: 2000-06-30
PRIOR PILING DATE: 2000-06-30
PRIOR PILING DATE: 2000-06-30
PRIOR PILING DATE: 2000-06-30
PRIOR PILING DATE: 2000-06-30
PRIOR PILING DATE: 2000-06-30
PRIOR PILING DATE: 2000-06-30
PRIOR PILING DATE: 2000-06-30
PRIOR PILING DATE: 2000-06-30
PRIOR PILING DATE: 2000-06-30
PRIOR PILING DATE: 2000-06-30
PRIOR PILING DATE: 2000-06-30
PRIOR PILING DATE: 2000-06-30
PRIOR PILING DATE: 2000-06-30
PRIOR PILING DATE: 2000-06-30
PRIOR PILING DATE: 2000-06-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 52707, Application US/60465241
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LOCATION: (1)... (31312)
OTHER INFORMATION: n = A,T,C or G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity 58.5%;
Matches 69; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURE:
NAME/KEY: misc_feature
LOCATION: (1)...(31312)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: DNA ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3908 TAACT 3904
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             187 TGCCT 191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-60-465-241-52707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LOCATION: (1) ... (163446)
COTHER INFORMATION: n = A,T,C or G, or insertion/deletion polymorphism (see Tables 1-US-60-470-166-8943
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: GRUPE, Andrew
TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH
TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH
TITLE OF INVENTION: ALZHEIMER'S DISEASE, METHODS OF DETECTION AND USES THEREOF
FILE REPERENCE: CLOO1464
CURRENT APPLICATION NUMBER: US/60/470,166
CURRENT FILING DATE: 2003-05-09
NUMBER OF SEQ ID NOS: 68617
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 8943
LENGTH: 763446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     102622 CGTTTAATTCGFTTATACTTAATATACTCACTGATACAATATGTGAGTTTTTTCTGCTGT 102681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   102682 TTTATTTTGGGTTTCTTTGCTCCTCTTTCCCCCTTTCCTGTCTTATATTAAAGGAATTGT 102741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  102742 TCCATATTTCTTTTTTTTTTAAATTTTTGTTGGTTCATAAGCTGTAGATCATATTCTGTTC 102801
                                                                                                                                                                                                                                                                                                                                                             537 TTGACATACATTTTGATGTATGTAGTTTAGGCTATACAGAATGTACAAACCAAAGCTGTAT 478
                                                                                                                                                                                                                                                                                                                                                                                                                             89 TAGITICACICAGGITITICAAAGCIACGCIGICCCCCAAAAACGAAAACAAAAACAAAAA 148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     477 CAATAATACATAGGTTTTTCAAAATTAGGTTTCAATAAGAATACAGAGAAAGGAAAAT 418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      141 AACAAAAAAACCTTTTTAAGAGTTGATGGCTACTCATTTGATCTGCCTCCTCTGCTG
                                                                                                                                                                                                                                                                                              29 TTGAAATAAATTATGAGGCTCCATGATATGCTATATTGGTTTTACCTTCAGAAGAATATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     21 CATAAAATTTGAAATAAAATTATGAGGCTCCATGATATGCTATATTGGTTTTTACCTTCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       81 AGAATATTTAGTTTCACTCAGGTTTTTCAAAGCTACGCTGTCCCCCAAAAAACGAAAACAA
                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 763446;
                                                                                                                                                                                                                               ö
                                                                                                                                                                   DB 1; Length 538;
                                                                                                                                                                                                                               68; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0; Mismatches 102; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    417 AACCACACCACCACAACTCAGAACTTCTAA 387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        149 AACAACCTTTTTAAGAGTTGATGGCTACTCA 179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 41.8; DE Pred. No. 2.2;
                                                                                                                                                                   Score 42.2; Di
Pred. No. 2;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                102802 TCCTAGTGATTACTCTTTTTTTTT 102826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 201 AATCAATTAGGAATTTTTTTTTT 225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 8943, Application US/60470166 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; Sequence 180, Application US/10240453; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: OLEK, Alexander
APPLICANT: PIEPENBROCK, Christian
APPLICANT: BERLIN, Kurt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 18.6%;
50.2%;
                                                                                                                                                                   Query Match
Best Local Similarity 55.0%;
Matches 83; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: CARGILL, Michele
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 18.6
Best Local Similarity 50.2
Matches 103; Conservative
      ORGANISM: Canis familiaris
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME/KEY: misc_feature
                                                                  OTHER INFORMATION:
PCT-US03-13853-2534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 6
US-10-240-453-180/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 5
US-60-470-166-8943
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT:
APPLICANT:
```

엄

ò

В

셤 ò

ઠે

us-09-765-231a-58.rnpn

ઠે g ò g

```
Sequence 84536, Application US/60466412
GENERAL INFORMATION:
APPLICANT: CARGILLANT:
TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH
TITLE OF INVENTION: MYOCARDIAL INFARCTION, METHODS OF DETECTION AND USES THEREOF
FILE REFERENCE: CLO01466
CURRENT APPLICATION NUMBER: US/60/466,412
CURRENT FILING DATE: 2003-64-30
NUMBER OF SEQ ID NOS: 429241
SOFTWARE: FASTSEQ for Windows Version 4.0
SEQ ID NO 84536
LENGTH: 343317
                                                                                                                                                                                                                                                                                                                                              APPLICANT: BEGOVICH, Ann
TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH
TITLE OF INVENTION: RHEUMATOID ARTHRITIS, METHODS OF DETECTION AND USES THEREOF
FILE REPRENCE: CLO01468
CURRENT APPLICATION NUMBER: US/60/465,241
CURRENT FILING DATE: 2001-04-23
NUMBER OF SEQ ID NOS: 258418
SEQ ID NO 51757
LENGTH: 343317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             185157 TTATTTCTTTGAGGTAAACAATTTCAAAGAAATAATGTGATTTAATGTAATAATTTATAA 185216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       7 TAAGTTGTTTCAGGCATAAAATTTGAAATAAATTATGAGGCTCCATGATATGCTATATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              67 GTTTTACCTTCAGAAGAATATTTAGT - TTCACTCAGGTTTTTCAAAGCTACGCTGTCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 343317;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 343317;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                 Query Match 17.2%; Score 38.6; DB 10; Best Local Similarity 61.1%; Pred. No. 12; Matches 80; Conservative 0; Mismatches 49;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0; Mismatches 49;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 38.6; I
Pred. No. 12;
                                                                                                                                                                                                                                     Sequence 51757, Application US/60465241
GENERAL INFORMATION:
APPLICANT: CARGILL, Michele
APPLICANT: BEGOVICH, Ann
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURE:

NAME/KEY: misc_feature

COCATION: (1)...(343317)

OTHER INFORMATION: n = A,T,C or
US-60-465-241-51757
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity 61.1%;
Matches 80; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         185277 CCATATATCAA 185287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        125 CCAAAAAACGA 135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: DNA . ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME/KEY: misc_feature
                                                                                                                                                                       RESULT 10
US-60-465-241-51757
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-60-466-412-84536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 음
                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               윱
       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ્ઠે
                                                                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:
APPLICANT: CARGILL, Michele
APPLICANT: CARGILL, Michele
APPLICANT: CARGILL, Michele
APPLICANT: ARGUBOVA, Olga
TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH
TITLE OF INVENTION: MYCCARDIAL INFARCTION, METHODS OF DETECTION AND USES THEREOF
FILE REFERENCE: CLO01466
CURRENT APPLICATION NUMBER: US/60/466,412
CURRENT FILING DATE: 2003-04-30
NUMBER OF SEQ ID NOS: 429241
SEQ ID NO 86559
                                                      29982 GACCACTGACTATTCAGTTTCCTATTCTTGAGCAAGTTGTGGTAGTTGGTGTCT 30039
29982 GACCACTGACTATTTCAGTTTCCTATTCTTGAGCAAGTTGTGGTAGTTGGTGTCT 30039
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          74 CTTCAGAAGAATATTTAGTTTCACTCAGGTTTTTCAAAGCTACGCTGTCCCCCAAAAAAC 133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    759 ctriciadracicados de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de consecuencia de conse
                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GENERAL INFORMATION:
APPLICANT: TOTYAMA
APPLICANT: TOTYAMA
TITLE OF INVENTION: COMPOSITION AND METHOD FOR NERVE REGENERATION
FILE REFERENCE: 59150-8023
CURRENT APPLICATION NUMBER: US/10/427,741
CURRENT PILING DATE: 2003-04-30
PRIOR APPLICATION NUMBER: UP 2003-92923
PRIOR APPLICATION NUMBER: US/10/427,741
CURRENT PILING DATE: 2003-03-36
NUMBER OF SEQ ID NOS: 25
SOFTWARE: PATENTIN VERSION 3.1
SEQ ID NO 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 10; Length 31312;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 60615;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        49; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 38; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 39.2; DB 8;
Pred. No. 8.9;
0; Mismatches 38;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
17.6%; Score 39.6; DE
Best Local Similarity 58.5%; Pred. No. 7.3;
Matches 69; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LOCATION: (1)...(31312)
CHER INFORMATION: n = A,T,C or G
US-60-466-412-86559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            17.4%;
62.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 62.0
Matches 62; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: DNA ORGANISM: Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME/KEY: misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LENGTH: 60615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-10-427-741-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURE:
```

g

ઠે 윱

ò

셤 δ d ò g

```
61750 ATGTTGAGCATTGTATATTTTATTATAATTTTAATTGTCTTCCATGTCATTTTATTAGTA 61691
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              6268
                                                                                                                                                                                                                                                                                                                                                                                                                        6267 TAAATAAAATCAAATATACTCAATTCTAACTAATTCTCCGCTCTCTCAAATAACTTA 6208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                         141
                                                                                                                                                                                                                                                                                                                                                                            201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    68 TITIACCTICAGAAGAATAITIAGTITCACTCAGGTITITCAAAGCTACGCTGTCCCCCA 127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8 AAGTIGITICAGGCATAAATTIGAAATAAATTATGAGGCICCATGATATGCTATATIGG
                                                                                                                                                                                                                                                                                                                                142 ACAAAAAAACAACCTTTTTAAGAGTTGATGGCTACTCATTTGATCTGCCTCCTCTGCTGA
                                                                                                                                                                                                                                                                                    82 GAATATTTAGTTTCACTCAGGTTTTTCAAAGCTACGCTGTCCCCCAAAAAACGAAACAAA
                                                                                                                                                                                                 22 ATAAAATTTGAAATAAATTATGAGGCTCCATGATATGCTATATTGGTTTTACCTTCAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Morris, David
APPLICANT: Engelhard, Eric
TITLE OF INVENTION: NOVEL COMPOSITIONS AND METHODS FOR CANCER
FILE REFERENCE: A-71-249/RMS/DCF
CURRENT FILING DATE: 2002-12-26
PRIOR APPLICATION NUMBER: US 09/747,377
PRIOR PILING DATE: 2000-12-22
PRIOR PILING DATE: 2001-03-02
PRIOR PILING DATE: 2010-03-02
PRIOR PILING DATE: 2010-03-03
SOFTWARE: PACENTIN NUMBER: US 09/798,586
SEQ ID NOS: 1613
SOFTWARE: PACENTIN VERSION 3.1
SEQ ID NO 1544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB 9; Length 12393; 17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                     0; Mismatches 100; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     82;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 37.8; DB
Pred. No. 18;
0; Mismatches
                                                                                                          Score 38;
Pred. No.
                                           g or c or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 1544, Application PC/TUS0241414 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Byrum, Joseph R.
APPLICANT: La Rosa, Thomas J.
APPLICANT: Shukla, Hridayabhiranjan
APPLICANT: De La Pena, Robert C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             6207 AACAATTTCTATCATTT 6190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      202 ATCAATTAGGAATTTTT 219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            16.8%;
51.5%;
                                                                                                          Query Match
Best Local Similarity 49.5%;
Matches 98; Conservative
                       ; LOCATION: 9300, 9362
; OTHER INFORMATION: n is a or
US-10-311-455-1236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 51.51
Matches 87; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: DNA ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       T-US02-41414-1544/c
NAME/KEY: unsure
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PCT-US02-41414-1544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LENGTH: 96588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                           ઠ
                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                          유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: OLEK, Alexander
APPLICANT: DLEK, Alexander
APPLICANT: PIEPENBROCK, Christian
APPLICANT: BERLIN, Kurt
ATTLE OF INVENTION: Diagnosis of Diseases Associated with the Immune System by Detern
TITLE OF INVENTION: cytosine methylation
FILE REFERENCE: 5013.1014
CURRENT FILING DATE: 2002-12-16
                                                                                                                                                                                                                                                                                                                                                                                                     Ð
                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: VENTER, J. Craig
TITLE OF INVENTION: COLLECTION OF SINGLE NUCLEOTIDE POLYMORPHISM (SNPs) LOCATED ON OF TITLE OF INVENTION: 17, METHODS OF DETECTION, AND USES THEREOF FILE REFERENCE: CLOO1294
CURRENT APPLICATION NUMBER: US/09/948,128
CURRENT FILING DATE: 2001-09-07
NUMBER OF SEQ ID NOS: 465
SEQ ID NO 55
LENGTH: 15105345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 6035217 TACAGCCTGGGTAACAAGAGCGAAACTGCGTCTCAAAAAACAAAACAAAACAAAAGAA 6035158
                                           185157 TTATTTCTTTGAGGTAAACAATTTCAAAGAAATAATGTGATTTAATGTAATAATTATAA 185216
                                                                                                                              185217 Arcrigaangacaaardaarcrirragaaarcracricarrrarrrraadararacrarcag 185276
                                                                                       67 GITTIACCTICAGAAGAAIATIIAGI --IICACTICAGGITTITICAAAGCTACGCIGICCC 124
  7 TAAGTTGTTTCAGGCATAAAATTTGAAATTAAATTATGAGGCTCCATGATATGCTATATTG 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 15105345;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURE:
OTHER INFORMATION: chemically treated genomic DNA (Homo sapiens)
PEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         29; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 38.6; DB; Pred. No. 11; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      6035157 ArctricaAcaciricacacci 6035133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CURKENT FILING DATE: 2002-12-16
PRIOR APPLICATION NUMBER: PCT/EP01/07537
PRIOR FILING DATE: 2007
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             153 ACCITITIAAGAGIIGAIGGCIACI 177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE: 2001-07-02
APPLICATION NUMBER: DE 10032529.7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR FILING DATE: 2000-06-30
PRIOR APPLICATION UNMBER: DE 10043826.1
PRIOR FILING DATE: 2000-09-01
NUMBER OF SEO ID NOS: 2424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 1236, Application US/10311455
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                Sequence 55, Application US/09948128; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 '; NAME/KEY: misc_feature
; LCCATION: (1)...(1510534S)
; OTHER INFORMATION: n = A,T,C or G
US-09-948-128-55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity 65.9%;
Matches 56; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: DNA
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                        185277 CCATATATCAA 185287
                                                                                                                                                                               125 CCAAAAAACGA 135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10-311-455-1236/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM: HUMAN
                                                                                                                                                                                                                                                                                         RESULT 12
US-09-948-128-55/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQ ID NO 1236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR
```

셤 ઠ

ઠે

```
: Bougri, Olegs
INVENTION: Nucleic Acid Molecules And Other Molecules Associated With
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 16.7%; Score 37.6; DB 7; Length 522; Best Local Similarity 55.3%; Pred. No. 23; Matches 73; Conservative 0; Mismatches 59; Indels
                                                                                                                                                                                                                                                                                                                  FEATURE:
NAME/KEY: unsure
LOCATION: (1). (522)
LOTHER INFORMATION: unsure at all n locations
FEATURE:
OTHER INFORMATION: Clone ID: LIB3598-060-Q1-N1-F10
                                                FITLE OF INVENTION: Plants
FILE REFERENCE: 38-21 (51892) B
CURRENT APPLICATION NUMBER: US/09/837,604A
CURRENT FILING DATE: 2001-04-18
FRIOR APPLICATION NUMBER: US 60/197,872
NUMBER OF SEQ ID NOS: 81288
SEQ ID NO 71071
LENGTH: 522
                                                                                                                                                                                                                                                                      TYPE: DNA
ORGANISM: Oryza sativa nipponbare
```

Search completed: June 9, 2003, 11:23:37 Job time: 3581 secs

142 ACAAAAAAACAA 153 | | | | | | | | | | | 30 AAAAAAAAAA 19

ò

ያ 8

g

õ

THIS PAGE BLANK (USPTO)